


STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT ☒

APPLICATION FOR PERMIT TO DRILL						1. WELL NAME and NUMBER NBU 922-36G4CS				
2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>						3. FIELD OR WILDCAT NATURAL BUTTES				
4. TYPE OF WELL Gas Well Coalbed Methane Well: NO						5. UNIT or COMMUNITIZATION AGREEMENT NAME NATURAL BUTTES				
6. NAME OF OPERATOR KERR-MCGEE OIL & GAS ONSHORE, L.P.						7. OPERATOR PHONE 720 929-6515				
8. ADDRESS OF OPERATOR P.O. Box 173779, Denver, CO, 80217						9. OPERATOR E-MAIL julie.jacobson@anadarko.com				
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) ML-22650			11. MINERAL OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>			12. SURFACE OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>				
13. NAME OF SURFACE OWNER (if box 12 = 'fee')						14. SURFACE OWNER PHONE (if box 12 = 'fee')				
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')						16. SURFACE OWNER E-MAIL (if box 12 = 'fee')				
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')			18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input checked="" type="checkbox"/> (Submit Commingling Application) NO <input type="checkbox"/>			19. SLANT VERTICAL <input type="checkbox"/> DIRECTIONAL <input checked="" type="checkbox"/> HORIZONTAL <input type="checkbox"/>				
20. LOCATION OF WELL		FOOTAGES		QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN		
LOCATION AT SURFACE		2434 FNL 2447 FEL		SWNE	36	9.0 S	22.0 E	S		
Top of Uppermost Producing Zone		2566 FNL 1818 FEL		SWNE	36	9.0 S	22.0 E	S		
At Total Depth		2566 FNL 1818 FEL		SWNE	36	9.0 S	22.0 E	S		
21. COUNTY UINTAH			22. DISTANCE TO NEAREST LEASE LINE (Feet) 1818			23. NUMBER OF ACRES IN DRILLING UNIT 640				
			25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 493			26. PROPOSED DEPTH MD: 8742 TVD: 8659				
27. ELEVATION - GROUND LEVEL 4959			28. BOND NUMBER 22013542			29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE Permit #43-8496				
Hole, Casing, and Cement Information										
String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
SURF	11	8.625	0 - 2260	28.0	J-55 LT&C	0.2	Type V	180	1.15	15.8
							Class G	270	1.15	15.8
PROD	7.875	4.5	0 - 8742	11.6	I-80 LT&C	12.5	Premium Lite High Strength	280	3.38	11.0
							50/50 Poz	1180	1.31	14.3
ATTACHMENTS										
VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES										
<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER					<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN					
<input type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)					<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER					
<input checked="" type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)					<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP					
NAME Gina Becker				TITLE Regulatory Analyst II			PHONE 720 929-6086			
SIGNATURE				DATE 05/13/2011			EMAIL gina.becker@anadarko.com			
API NUMBER ASSIGNED 43047516280000				APPROVAL <div style="text-align: center;">  Permit Manager </div>						

RECEIVED: Jul. 26, 2011

Kerr-McGee Oil & Gas Onshore. L.P.**NBU 922-36G4CS**

Surface: 2434 FNL / 2447 FEL SWNE
BHL: 2566 FNL / 1818 FEL SWNE

Section 36 T9S R22E

Unitah County, Utah
Mineral Lease: ML-22650

ONSHORE ORDER NO. 1**DRILLING PROGRAM**

1. & 2. **Estimated Tops of Important Geologic Markers:**
Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 - Surface	
Green River	1154	
Birds Nest	1435	Water
Mahogany	1813	Water
Wasatch	4240	Gas
Mesaverde	6451	Gas
MVU2	7464	Gas
MVL1	8016	Gas
TVD	8659	
TD	8742	

3. **Pressure Control Equipment** (Schematic Attached)

Please refer to the attached Drilling Program

4. **Proposed Casing & Cementing Program:**

Please refer to the attached Drilling Program

5. **Drilling Fluids Program:**

Please refer to the attached Drilling Program

6. **Evaluation Program:**

Please refer to the attached Drilling Program

7. Abnormal Conditions:

Maximum anticipated bottom hole pressure calculated at 8659' TVD, approximately equals
 5,542 psi 0.64 psi/ft = actual bottomhole gradient

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 3,625 psi (bottom hole pressure
 minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-
 (0.22 psi/ft-partial evac gradient x TVD of next csg point))

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. Variances:

Please refer to the attached Drilling Program.

Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- *Blowout Prevention Equipment (BOPE) requirements;*
- *Mud program requirements; and*
- *Special drilling operation (surface equipment placement) requirements associated with air drilling.*

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 11 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and

on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

10. Other Information:

Please refer to the attached Drilling Program.

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP					DATE	July 14, 2011		
WELL NAME	NBU 922-36G4CS					TD	8,659'	TVD	8,742' MD
FIELD	Natural Buttes		COUNTY	Uintah	STATE	Utah	FINISHED ELEVATION		4959.4
SURFACE LOCATION	SWNE	2434 FNL	2447 FEL	Sec 36	T 9S	R 22E			
	Latitude:	39.993125	Longitude:	-109.386946		NAD 27			
BTM HOLE LOCATION	SWNE	2566 FNL	1818 FEL	Sec 36	T 9S	R 22E			
	Latitude:	39.992754	Longitude:	-109.3847		NAD 27			
OBJECTIVE ZONE(S)	Wasatch/Mesaverde								
ADDITIONAL INFO	Regulatory Agencies: UDOGM (Minerals), UDOGM (Surface), UDOGM Tri-County Health Dept.								

GEOLOGICAL			MECHANICAL		
LOGS	FORMATION TOPS	DEPTH	HOLE SIZE	CASING SIZE	MUD WEIGHT
		40'		14"	
			12-1/4"	8-5/8", 28#, IJ-55, LTC	Air mist
		200'			
			11'	8-5/8", 28#, IJ-55, LTC	Air mist
<p>All water flows encountered while drilling will be reported to the appropriate agencies.</p> <p>Green River @ 1,154'</p> <p>Top of Birds Nest @ 1,435'</p> <p>Mahogany @ 1,813'</p> <p>Preset f/ GL @ 2,260' MD</p> <p>Note: 11" surface hole will usually be drilled ±400' below the lost circulation zone (aka bird's nest). Drilled depth may be ±200' of the estimated set depth depending on the acutal depth of the loss zone.</p> <p>Wasatch @ 4,240'</p> <p>Mud logging program TBD</p> <p>Cased hole logging program from TD - surf csg</p> <p>Mverde @ 6,451' TVD</p> <p>MVU2 @ 7,464' TVD</p> <p>MVU1 @ 8,016' TVD</p> <p>Max anticipated Mud required 8,659' TVD</p> <p>12.5 ppg TD @ 8,742' MD</p>					
			7-7/8"	4-1/2" 11.6# I-80 or equivalent BTC/LTC csg	Water / Fresh Water Mud 8.3-12.0 ppg



KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS		
						BURST	LTC	BTC
CONDUCTOR	14"	0-40'						
						3,390	1,880	348,000
SURFACE	8-5/8"	0 to 2,260	28.00	IJ-55	LTC	2.39	1.78	6.28
						7,780	6,350	279,000
PRODUCTION	4-1/2"	0 to 8,742	11.60	I-80	LTC/BTC	1.11	1.13	3.40
								4.47

Surface Casing:

(Burst Assumptions: TD = 12.5 ppg)

0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 7000 psi)

0.64 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	180	60%	15.80	1.15
Option 1							
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt + 2% CaCl + 0.25 pps flocele	270	0%	15.80	1.15
SURFACE			NOTE: If well will circulate water to surface, option 2 will be utilized				
Option 2	LEAD	1,760'	65/35 Poz + 6% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOW	160	35%	11.00	3.82
	TAIL	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	150	35%	15.80	1.15
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION	LEAD	3,732'	Premium Lite II +0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	280	20%	11.00	3.38
	TAIL	5,010'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,180	35%	14.30	1.31

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. No centralizers will be used.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

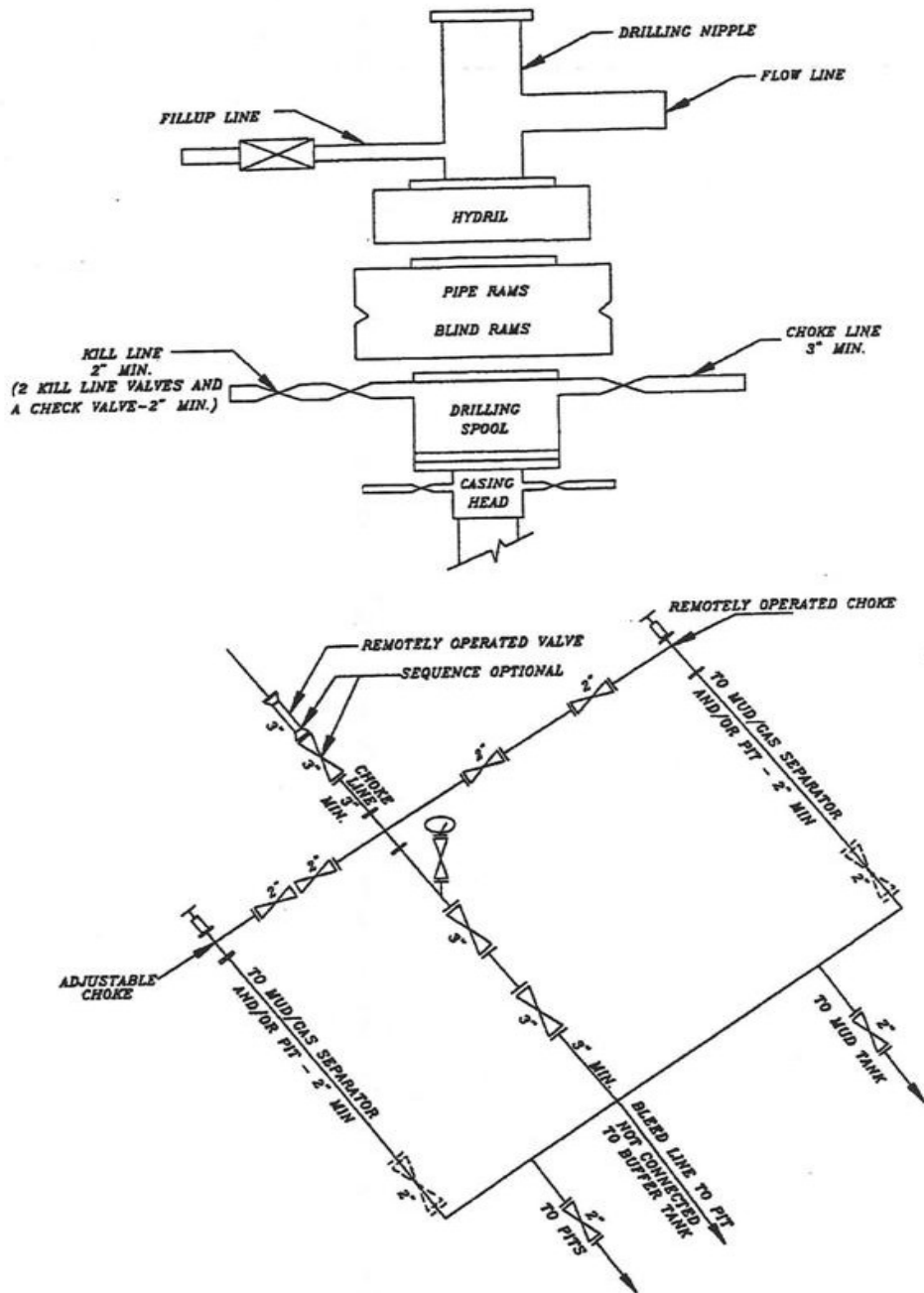
BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

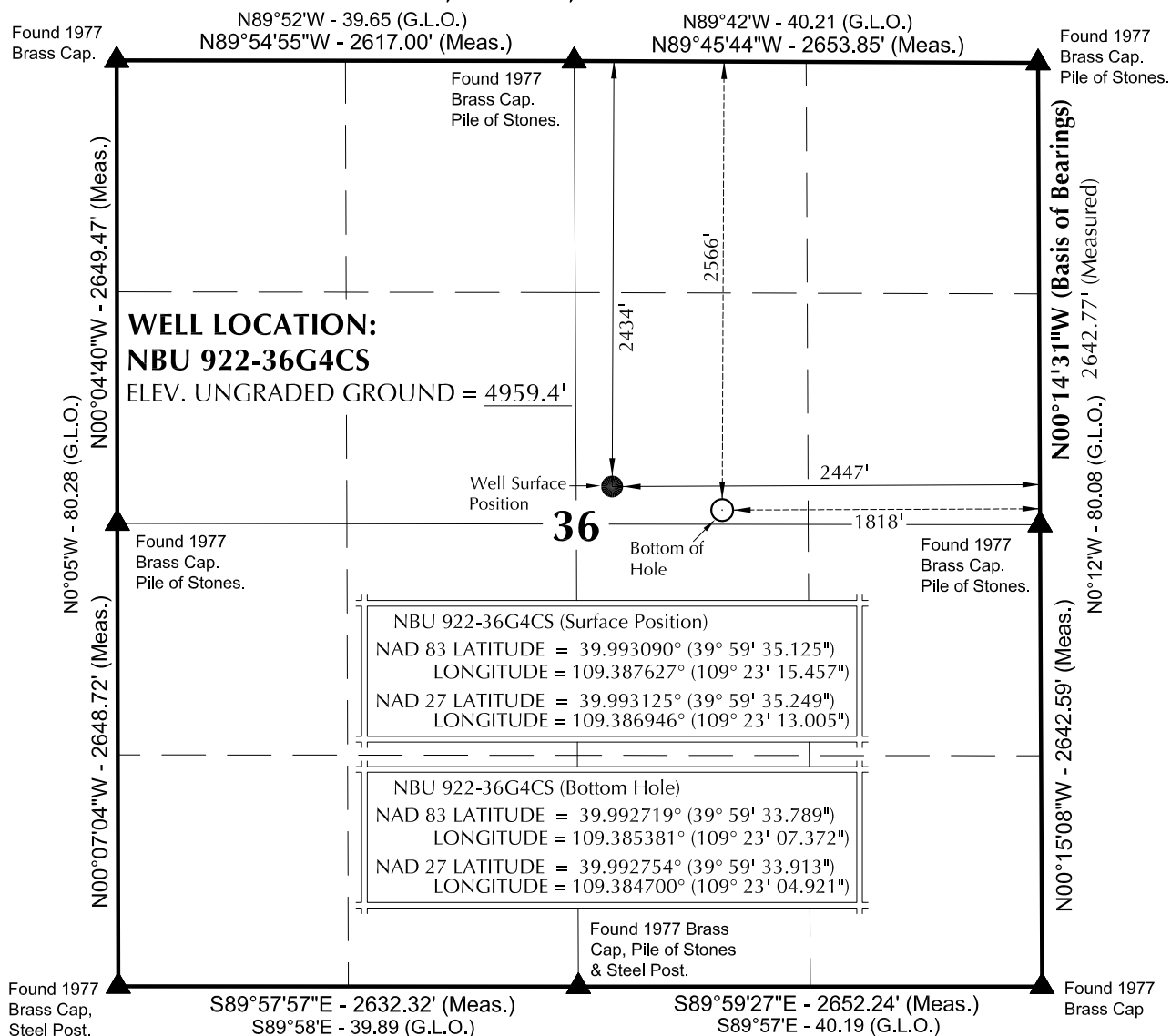
DRILLING ENGINEER:_____
Nick Spence / Emile Goodwin**DATE:****DRILLING SUPERINTENDENT:**_____
Kenny Gathings / Lovel Young**DATE:**

EXHIBIT A
NBU 922-36G4CS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

T9S, R22E, S.L.B.&M.



NOTES:

- ▲ = Section Corners Located
1. Well footages are measured at right angles to the Section Lines.
 2. G.L.O. distances are shown in feet or chains.
1 chain = 66 feet.
 3. The Bottom of hole bears S77°55'40"E 643.78' from the Surface Position.
 4. Bearings are based on Global Positioning Satellite observations.
 5. Basis of elevation is Tri-Sta "Two Water" located in the NW $\frac{1}{4}$ of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

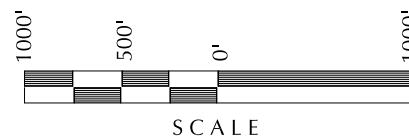
WELL PAD: NBU 922-36G3

NBU 922-36G4CS
WELL PLAT

2566' FNL, 1818' FEL (Bottom Hole)
SW $\frac{1}{4}$ NE $\frac{1}{4}$ OF SECTION 36, T9S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH.



CONSULTING, LLC
2155 North Main Street
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182



SURVEYOR'S CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED
FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR
UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE
AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

PROFESSIONAL LAND SURVEYOR
REGISTRATION No. 6028691
STATE OF UTAH

TIMBERLINE

(435) 789-1365

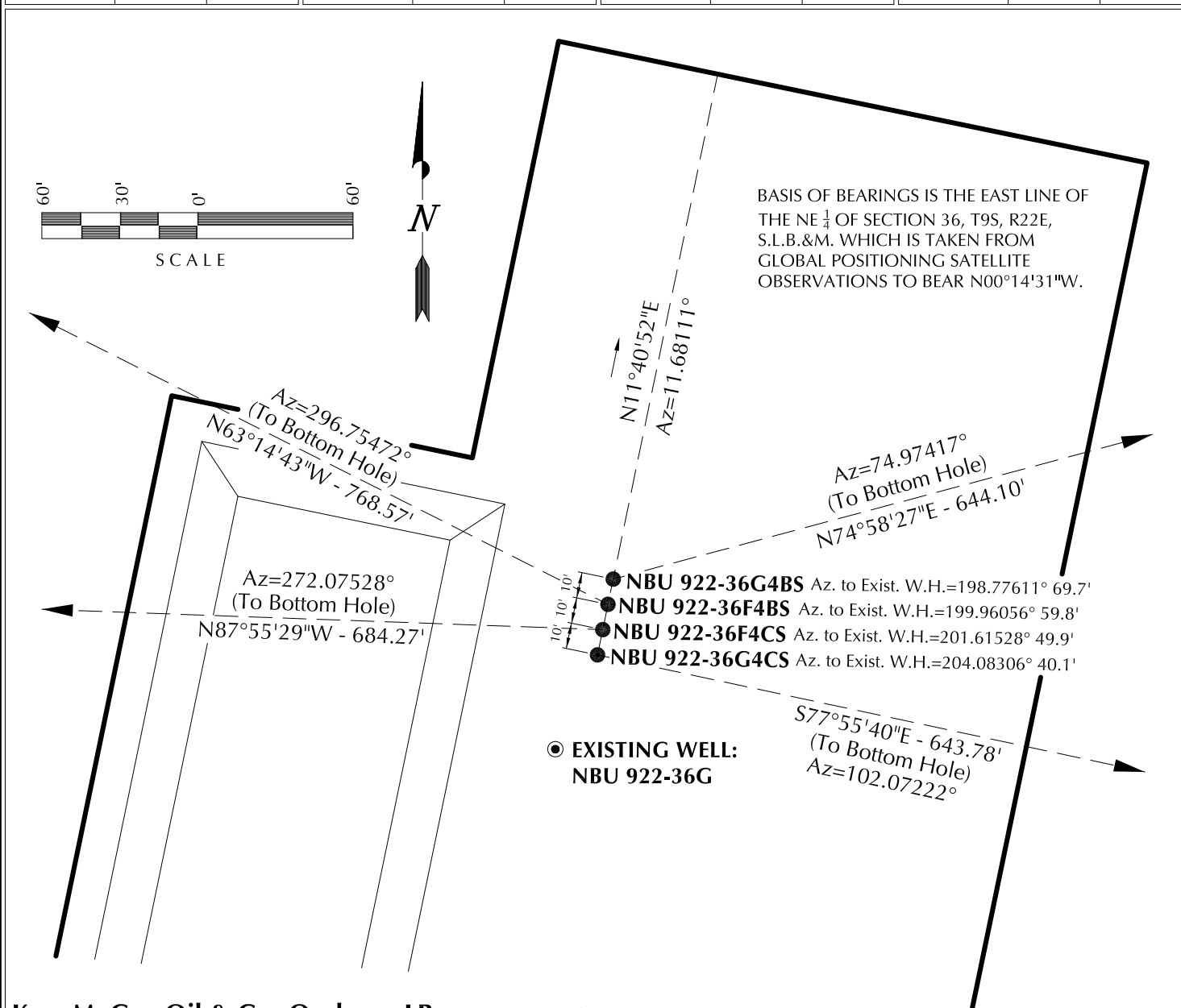
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 09-02-10	SURVEYED BY: M.S.B.	SHEET NO: <div style="font-size: 2em; text-align: center;">1</div> 1 OF 16
DATE DRAWN: 11-16-10	DRAWN BY: B.M.	
SCALE: 1" = 1000'	Date Last Revised: 12-15-10 F.M.S.	

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27		FOOTAGES	NAD83		NAD27		FOOTAGES
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE		LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	
NBU 922-36G4CS	39°59'35.125"	109°23'15.457"	39°59'35.249"	109°23'13.005"	2434' FNL	39°59'33.789"	109°23'07.372"	39°59'33.913"	109°23'04.921"	2566' FNL
	39.993090°	109.387627°	39.993125°	109.386946°	2447' FEL	39.992719°	109.385381°	39.992754°	109.384700°	1818' FEL
NBU 922-36F4CS	39°59'35.221"	109°23'15.431"	39°59'35.345"	109°23'12.979"	2424' FNL	39°59'35.472"	109°23'24.214"	39°59'35.596"	109°23'21.762"	2401' FNL
	39.993117°	109.387620°	39.993152°	109.386939°	2445' FEL	39.993187°	109.390059°	39.993221°	109.389378°	2149' FWL
NBU 922-36F4BS	39°59'35.318"	109°23'15.405"	39°59'35.442"	109°23'12.953"	2414' FNL	39°59'38.742"	109°23'24.216"	39°59'38.866"	109°23'21.765"	2070' FNL
	39.993144°	109.387612°	39.993178°	109.386931°	2443' FEL	39.994095°	109.390060°	39.994130°	109.389379°	2149' FWL
NBU 922-36G4BS	39°59'35.415"	109°23'15.378"	39°59'35.539"	109°23'12.927"	2405' FNL	39°59'37.059"	109°23'07.386"	39°59'37.183"	109°23'04.935"	2235' FNL
	39.993171°	109.387605°	39.993205°	109.386924°	2441' FEL	39.993628°	109.385385°	39.993662°	109.384704°	1818' FEL
NBU 922-36G	39°59'34.763"	109°23'15.667"	39°59'34.887"	109°23'13.216"	2471' FNL					
	39.992990°	109.387685°	39.993024°	109.387004°	2463' FEL					

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
NBU 922-36G4CS	-134.6'	629.5'	NBU 922-36F4CS	24.8'	-683.8'	NBU 922-36F4BS	346.0'	-686.3'	NBU 922-36G4BS	167.0'	622.1'



Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 922-36G3

WELL PAD INTERFERENCE PLAT
WELLS - NBU 922-36G4CS, NBU 922-36F4CS,
NBU 922-36F4BS & NBU 922-36G4BS,
LOCATED IN SECTION 36, T9S, R22E,
S.L.B.&M., UTAH COUNTY, UTAH.



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2155 North Main Street
Sheridan WY 82801
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Fax 307-674-0182

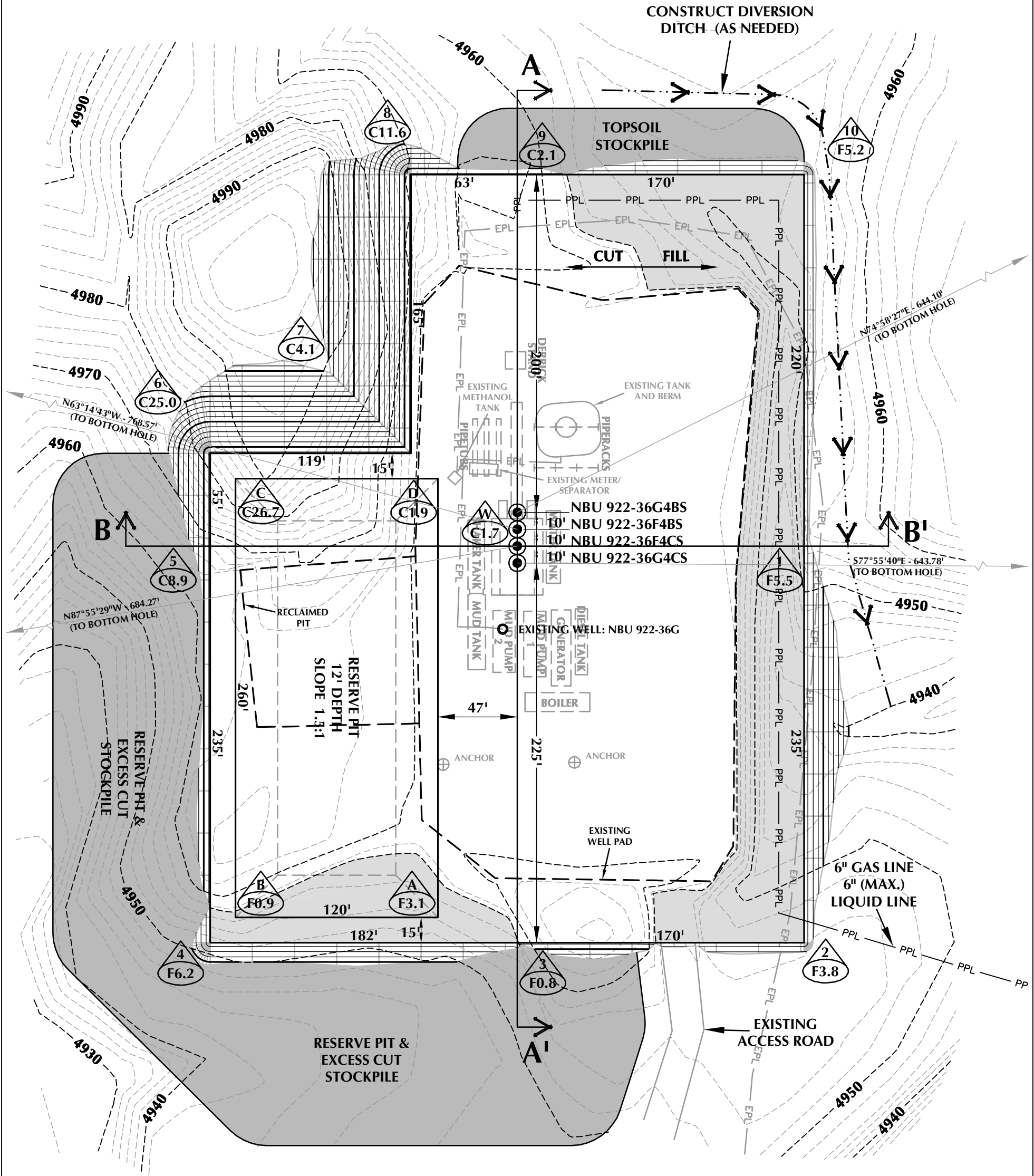
TIMBERLINE

(435) 789-1365

ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 09-02-10	SURVEYED BY: M.S.B.	SHEET NO: 5 5 OF 16
DATE DRAWN: 11-16-10	DRAWN BY: B.M.	
SCALE: 1" = 60'	Date Last Revised: 12-15-10 E.M.S.	

PLEASE NOTE: LOCATIONS OF PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA ARE FOR VISUALIZATION PURPOSES ONLY. ACTUAL LOCATIONS TO BE DETERMINED DURING CONSTRUCTION.



WELL PAD - NBU 922-36G3 DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 4959.2'
FINISHED GRADE ELEVATION = 4957.5'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1
TOTAL WELL PAD AREA = 3.82 ACRES
TOTAL DAMAGE AREA = 6.28 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 922-36G3

WELL PAD - LOCATION LAYOUT
NBU 922-36G4CS, NBU 922-36F4CS,
NBU 922-36F4BS & NBU 922-36G4BS
LOCATED IN SECTION 36, T9S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH



CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone 307-674-0609
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WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 19,427 C.Y.
TOTAL FILL FOR WELL PAD = 9,665 C.Y.
TOPSOIL @ 6" DEPTH = 1,864 C.Y.
EXCESS MATERIAL = 9,762 C.Y.

RESERVE PIT QUANTITIES

TOTAL CUT FOR RESERVE PIT
+/- 11,020 C.Y.
RESERVE PIT CAPACITY (2' OF FREEBOARD)
+/- 42,290 BARRELS

TIMBERLINE
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

(435) 789-1365

WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PPL - PROPOSED PIPELINE
- EPL - EXISTING PIPELINE



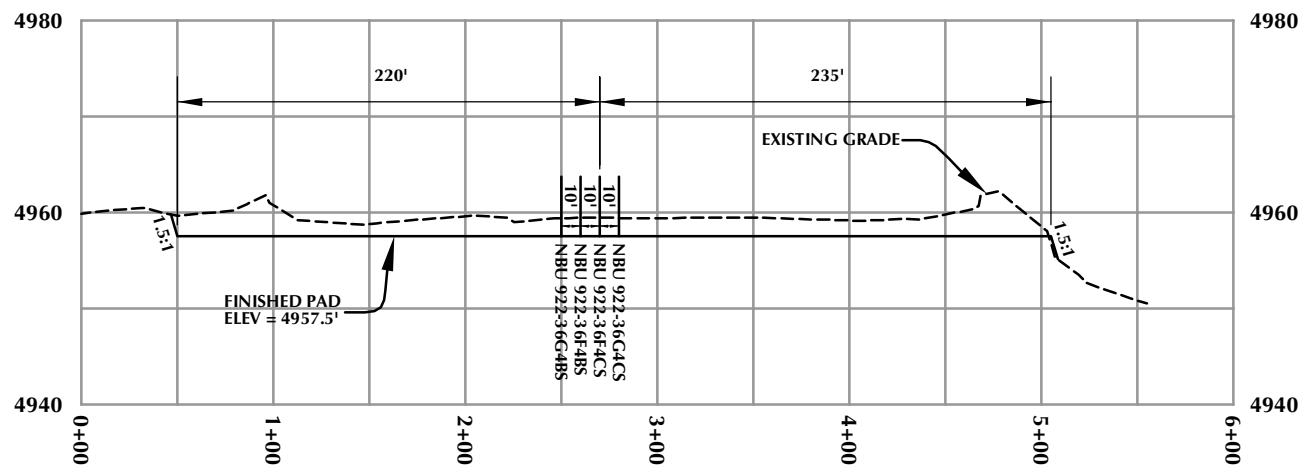
HORIZONTAL 0 30' 60' 1" = 60'

2' CONTOURS

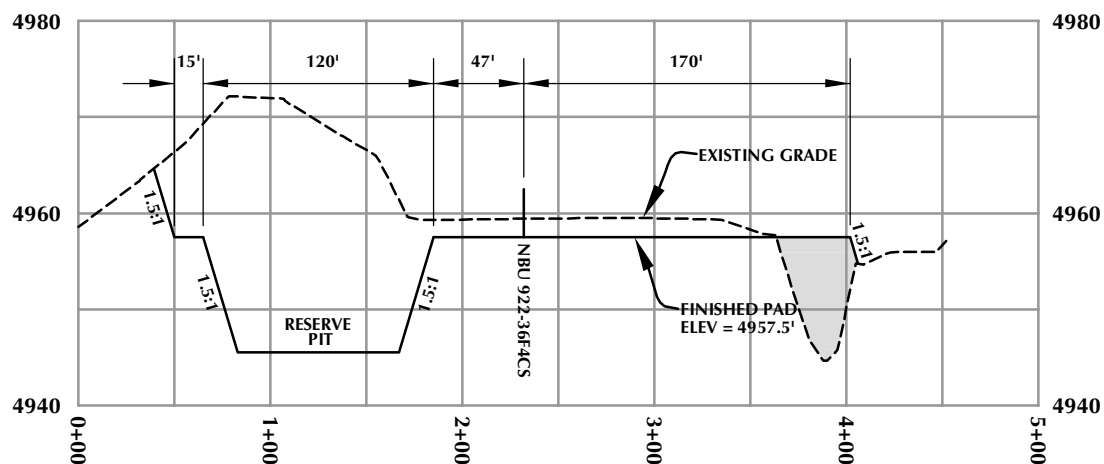
SCALE: 1"=60' DATE: 12/3/10 SHEET NO:

REVISED: 6

6 OF 16



CROSS SECTION A-A'



CROSS SECTION B-B'

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 922-36G3

WELL PAD - CROSS SECTIONS
NBU 922-36G4CS, NBU 922-36F4CS,
NBU 922-36F4BS & NBU 922-36G4BS
LOCATED IN SECTION 36, T9S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH



CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

(435) 789-1365

HORIZONTAL 0 50' 100' 1" = 100'
VERTICAL 0 10' 20' 1" = 20'

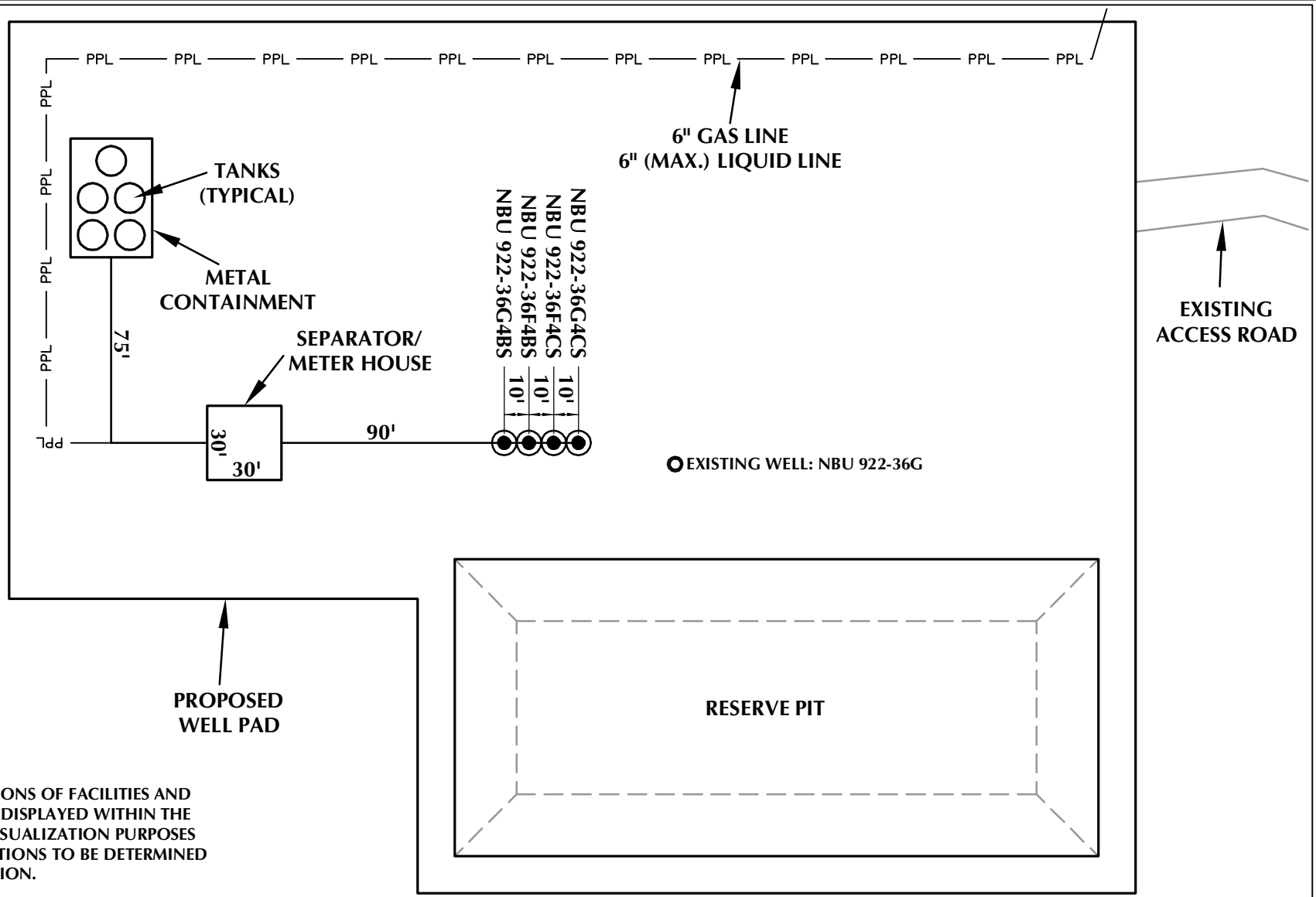
Scale: 1"=100'
REVISED:

Date: 12/3/10

SHEET NO:

7

7 OF 16



PLEASE NOTE: LOCATIONS OF FACILITIES AND PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA ARE FOR VISUALIZATION PURPOSES ONLY. ACTUAL LOCATIONS TO BE DETERMINED DURING CONSTRUCTION.

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 922-36G3
WELL PAD - FACILITIES DIAGRAM NBU 922-36G4CS, NBU 922-36F4CS, NBU 922-36F4BS & NBU 922-36G4BS LOCATED IN SECTION 36, T9S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH




609
CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone 307-674-0609
Fax 307-674-0182

WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PPL — PROPOSED PIPELINE
- EPL — EXISTING PIPELINE

TIMBERLINE
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST • VERNAL, UTAH 84078

(435) 789-1365



HORIZONTAL

0 30' 60' 1" = 60'

Scale: 1"=60'	Date: 12/3/10	SHEET NO: 8 8 OF 16
REVISED:		

K:\ANADARKO\2010_48_NBU_FOCUS_SEC_36-922\DWG\NBU 922-36G\NBU 922-36G_PAD_2010103.dwg, 12/7/2010 1:12:36 PM, jhe

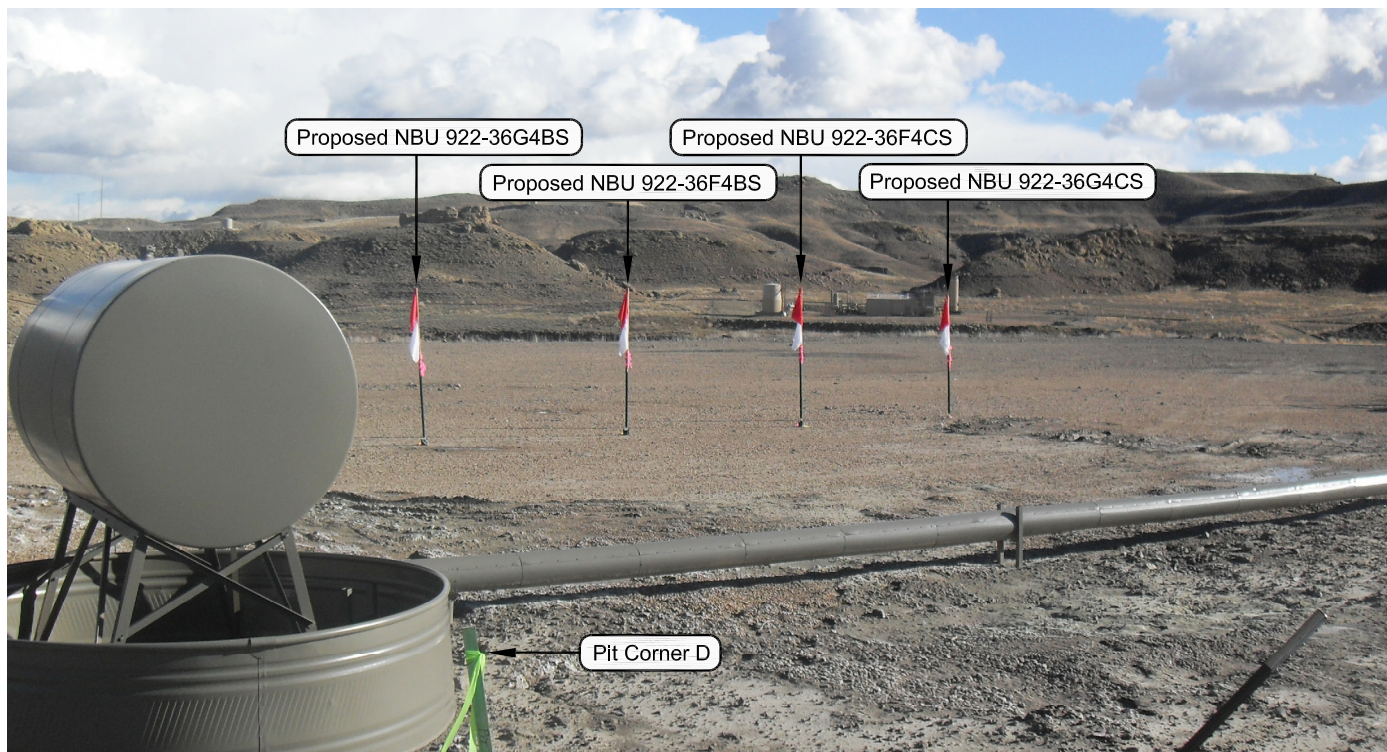


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE

CAMERA ANGLE: SOUTHEASTERLY



PHOTO VIEW: FROM EXISTING ACCESS ROAD

CAMERA ANGLE: NORTHERLY

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 922-36G3

LOCATION PHOTOS

**NBU 922-36G4CS, NBU 922-36F4CS,
NBU 922-36F4BS & NBU 922-36G4BS
LOCATED IN SECTION 36, T9S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH.**



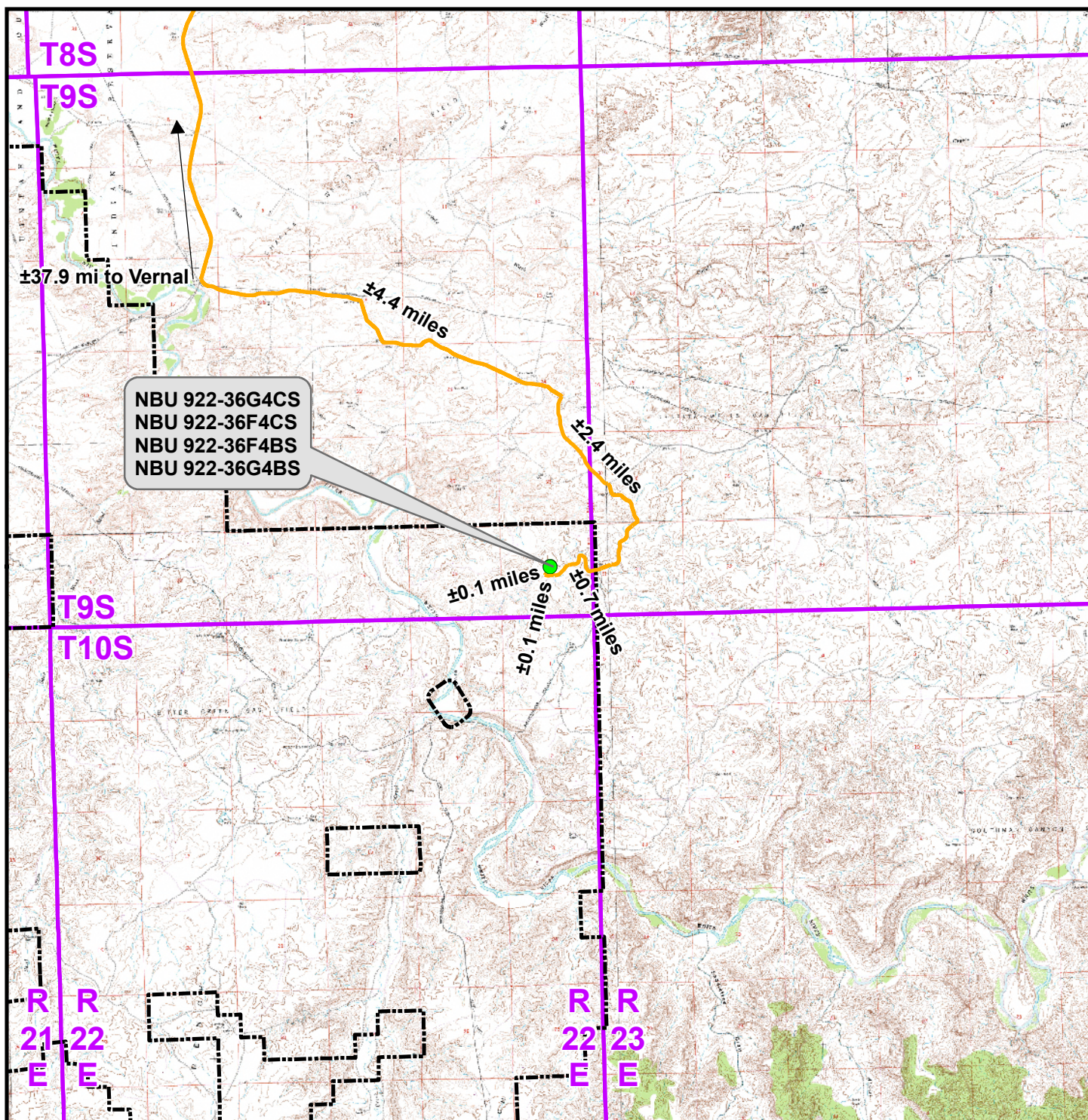
CONSULTING, LLC
2155 North Main Street
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE

(435) 789-1365

ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE PHOTOS TAKEN: 09-02-10	PHOTOS TAKEN BY: M.S.B.	9 9 OF 16
DATE DRAWN: 11-16-10	DRAWN BY: B.M.	
Date Last Revised:		



Legend

- Proposed Well Location
- Natural Buttes Unit Boundary
- Access Route - Proposed

Distance From Well Pad - NBU 922-36G3 To Unit Boundary: ±2,405ft

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 922-36G3

TOPO A

NBU 922-36G4CS, NBU 922-36F4CS,
NBU 922-36F4BS & NBU 922-36G4BS
LOCATED IN SECTION 36, T9S, R22E,
S.L.B.&M., UTAH COUNTY, UTAH



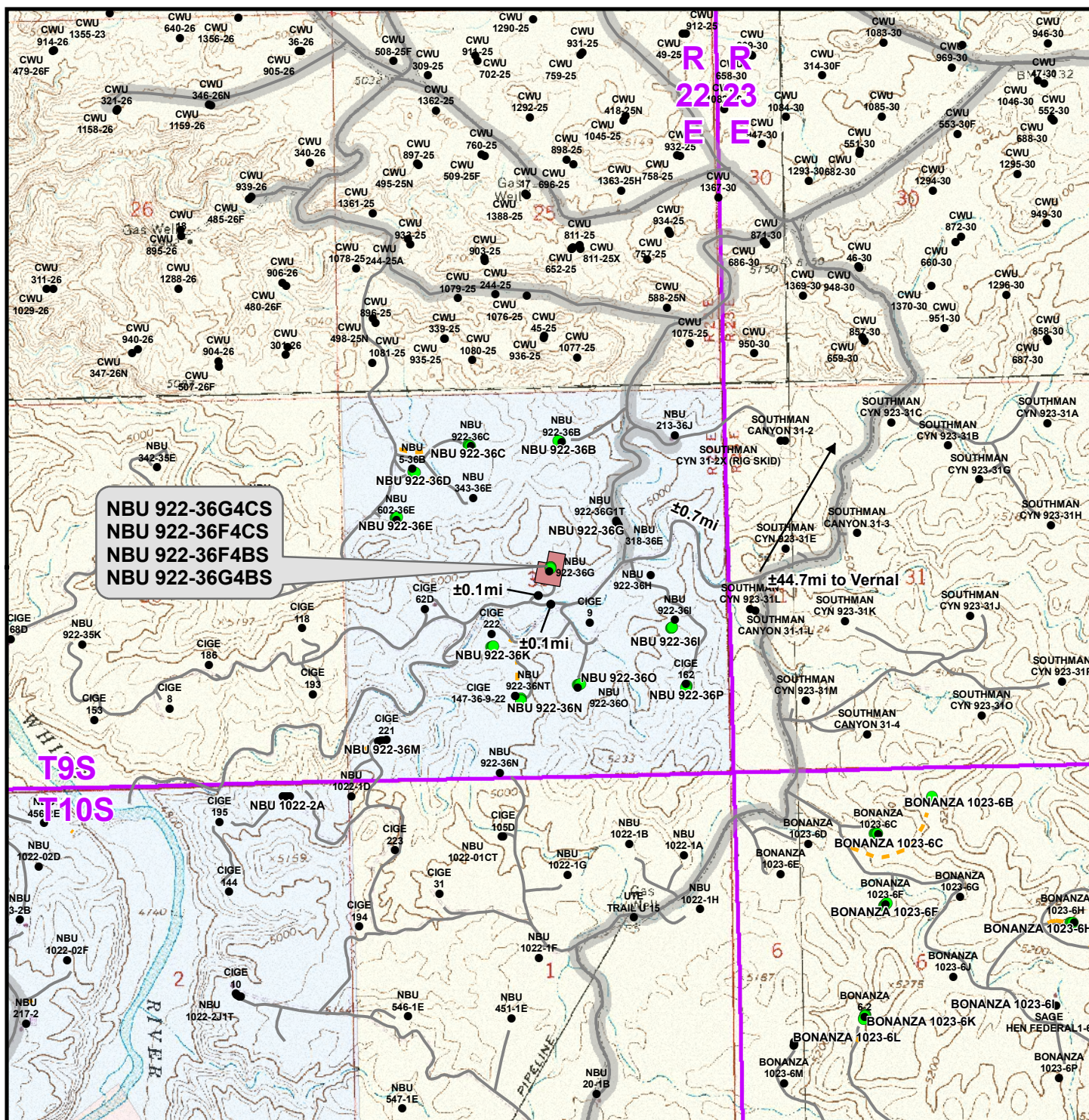
CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182



Scale: 1:100,000	NAD83 USP Central
Drawn: TL	Date: 3 Dec 2010
Revised:	Date:

Sheet No:

10 10 of 16



Legend

- | | | | | | |
|--|--|--|---|---|---|
| ● Well - Proposed | Well Pad | --- Road - Proposed | County Road | Bureau of Land Management | State |
| ● Well - Existing | --- Road - Existing | Indian Reservation | Private | | |

Total Proposed Road Length: ±0ft

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 922-36G3

TOPO B

**NBU 922-36G4CS, NBU 922-36F4CS,
NBU 922-36F4BS & NBU 922-36G4BS
LOCATED IN SECTION 36, T9S, R22E,
S.L.B.&M., UTAH COUNTY, UTAH**

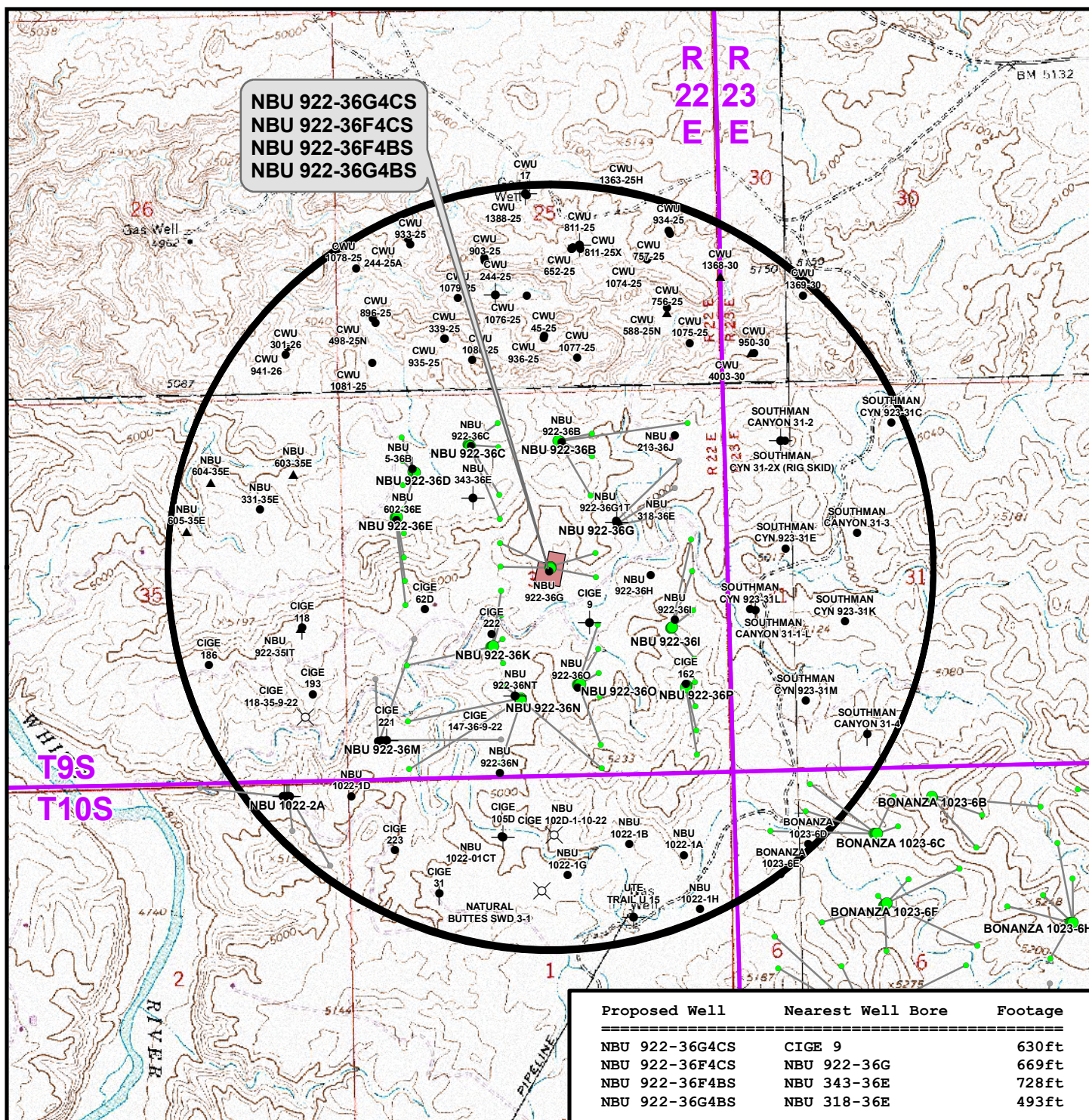
609

CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182



Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No:
Drawn: TL	Date: 3 Dec 2010	11
Revised:	Date:	

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Legend

- Well - Proposed
- Bottom Hole - Proposed
- Well Pad
- Well Path
- Bottom Hole - Existing
- Well - 1 Mile Radius

Well locations derived from State of Utah, Dept. of Natural Resources, Division of Oil, Gas and Mining

- Producing
- ★ Active
- ☉ Spudded (Drilling commenced: Not yet completed)
- ▲ Approved permit (APD); not yet spudded
- New Permit (Not yet approved or drilled)
- ⊕ Inactive
- ⊗ Drilling Operations Suspended
- Temporarily-Abandoned
- Shut-In
- Plugged and Abandoned
- ⊗ Location Abandoned
- ⊗ Dry hole marker, buried
- ⊗ Returned APD (Unapproved)

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 922-36G3

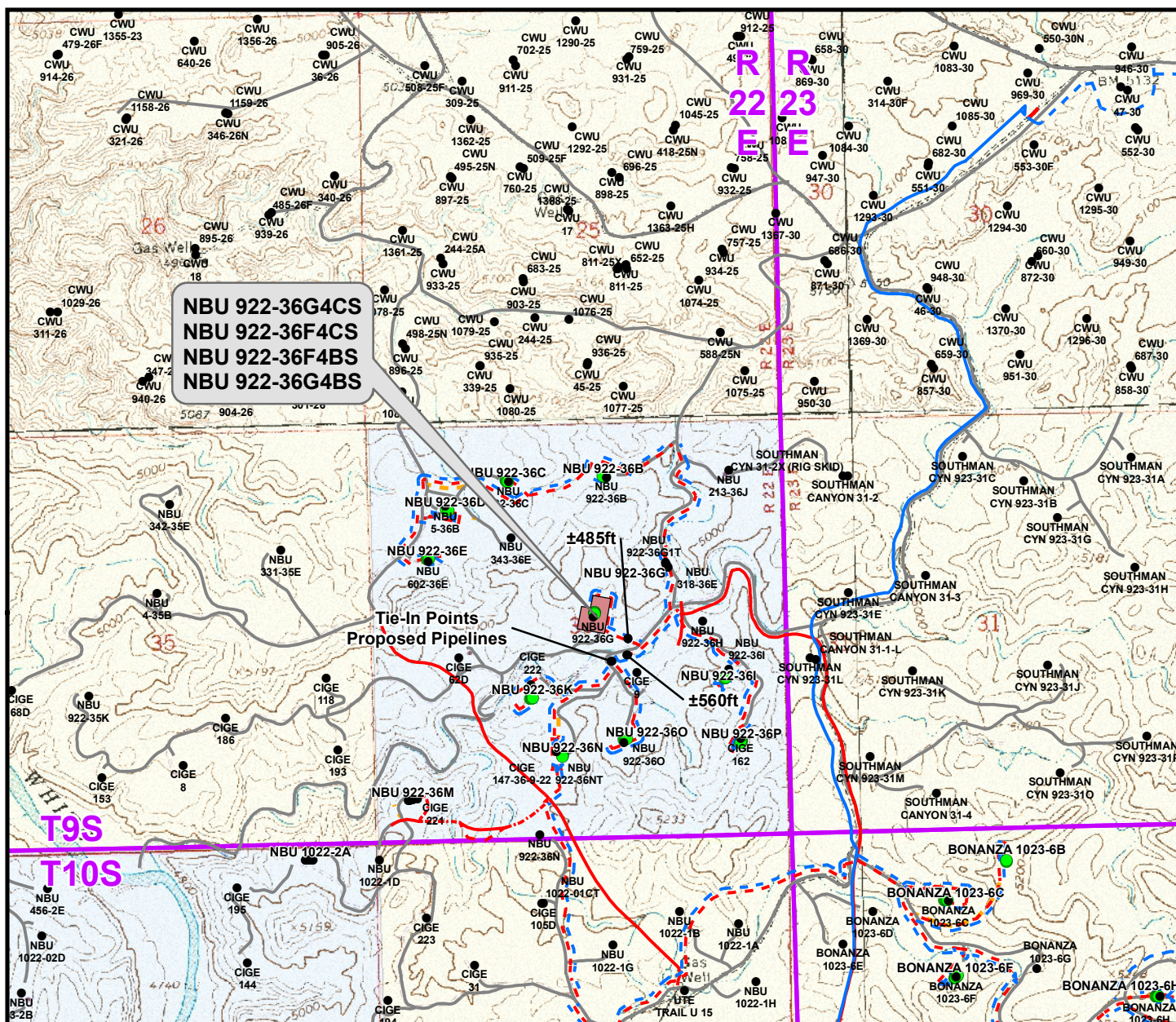
TOPO C
NBU 922-36G4CS, NBU 922-36F4CS,
NBU 922-36F4BS & NBU 922-36G4BS
LOCATED IN SECTION 36, T9S, R22E,
S.L.B.&M., UTAH COUNTY, UTAH

609
CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182



Scale: 1" = 2,000ft | NAD83 USP Central
Drawn: TL | Date: 3 Dec 2010
Revised: | Date:

Sheet No:
12 12 of 16



Proposed Liquid Pipeline	Length
Proposed 6" (Max.) (Meter House to Edge of Pad)	±675ft
Proposed 6" (Max.) (Edge of Pad to 36I Intersection)	±485ft
Proposed 6" (Max.) (36I Intersection to 36O Intersection)	±560ft
TOTAL PROPOSED LIQUID PIPELINE =	±1,720ft

Proposed Gas Pipeline	Length
Proposed 6" (Meter House to Edge of Pad)	±675ft
Proposed 6" (Edge of Pad to 36I Intersection)	±485ft
Proposed 16" (36I Intersection to 36O Intersection)	±560ft
TOTAL PROPOSED GAS PIPELINE =	±1,720ft

Legend

- Well - Proposed
- Well - Existing
- Well Pad
- - - Gas Pipeline - Proposed
- - - Gas Pipeline - To Be Upgraded
- Gas Pipeline - Existing
- - - Liquid Pipeline - Proposed
- Liquid Pipeline - Existing
- Road - Proposed
- Road - Existing
- Bureau of Land Management
- Indian Reservation
- State
- Private

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 922-36G3

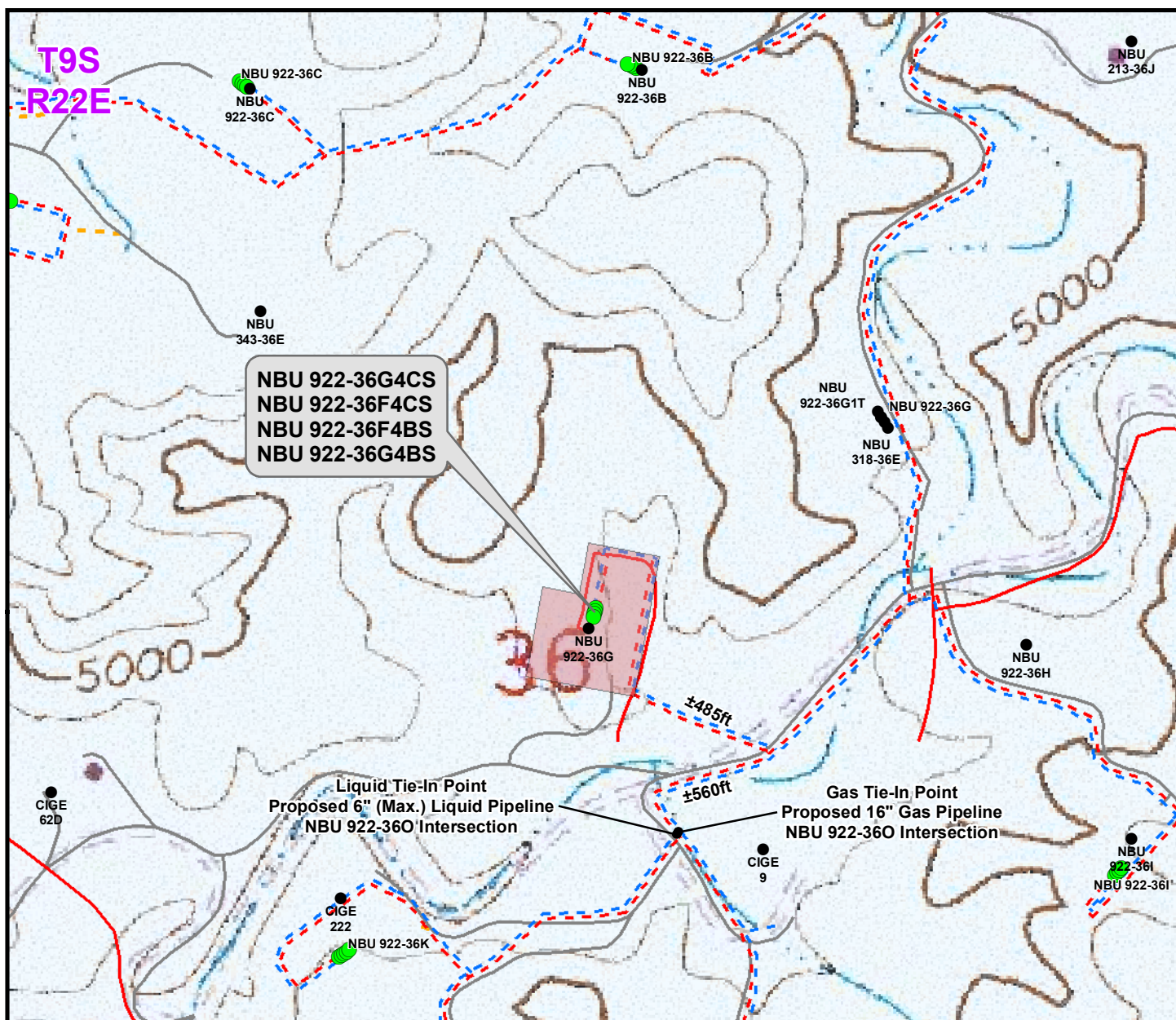
TOPO D
NBU 922-36G4CS, NBU 922-36F4CS,
NBU 922-36F4BS & NBU 922-36G4BS
LOCATED IN SECTION 36, T9S, R22E,
S.L.B.&M., UTAH COUNTY, UTAH



Scale: 1" = 2,000ft
NAD83 USP Central
Drawn: TL
Revised:
Date: 3 Dec 2010
Date:

Sheet No:

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Proposed Liquid Pipeline	Length
Proposed 6" (Max.) (Meter House to Edge of Pad)	±675ft
Proposed 6" (Max.) (Edge of Pad to 36I Intersection)	±485ft
Proposed 6" (Max.) (36I Intersection to 36O Intersection)	±560ft
TOTAL PROPOSED LIQUID PIPELINE =	±1,720ft

Proposed Gas Pipeline	Length
Proposed 6" (Meter House to Edge of Pad)	±675ft
Proposed 6" (Edge of Pad to 36I Intersection)	±485ft
Proposed 16" (36I Intersection to 36O Intersection)	±560ft
TOTAL PROPOSED GAS PIPELINE =	±1,720ft

Legend

- Well - Proposed
- Well - Existing
- Well Pad
- - - Gas Pipeline - Proposed
- - - Gas Pipeline - To Be Upgraded
- - - Gas Pipeline - Existing
- - - Liquid Pipeline - Proposed
- - - Liquid Pipeline - Existing
- - - Road - Proposed
- - - Road - Existing
- Bureau of Land Management
- Indian Reservation
- State
- Private

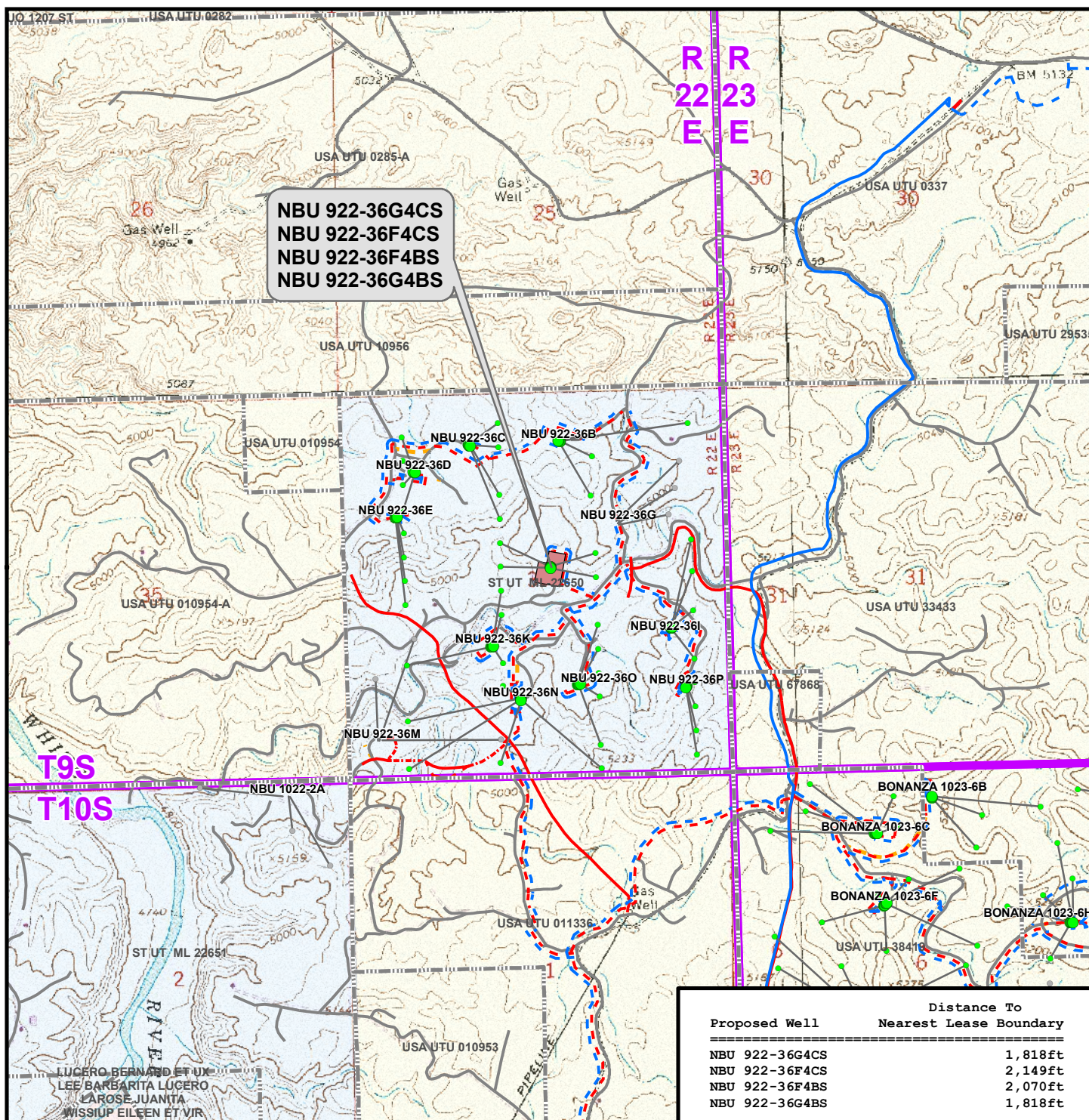
Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 922-36G3

TOPO D2 (PAD & PIPELINE DETAIL)
NBU 922-36G4CS, NBU 922-36F4CS,
NBU 922-36F4BS & NBU 922-36G4BS
LOCATED IN SECTION 36, T9S, R22E,
S.L.B.&M., UTAH COUNTY, UTAH



Scale: 1" = 500ft	NAD83 USP Central	Sheet No:
Drawn: TL	Date: 3 Dec 2010	14
Revised:	Date:	14 of 16



Legend

- Well - Proposed
- Bottom Hole - Proposed
- Bottom Hole - Existing
- Well Path
- Well Pad
- ▬ Lease Boundary
- Gas Pipeline - Proposed
- Gas Pipeline - To Be Upgraded
- Gas Pipeline - Existing
- Liquid Pipeline - Proposed
- Liquid Pipeline - Existing
- Road - Proposed
- Road - Existing
- Bureau of Land Management
- Indian Reservation
- State
- Private

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 922-36G3

TOPO E
NBU 922-36G4CS, NBU 922-36F4CS,
NBU 922-36F4BS & NBU 922-36G4BS
LOCATED IN SECTION 36, T9S, R22E,
S.L.B.&M., UTAH COUNTY, UTAH



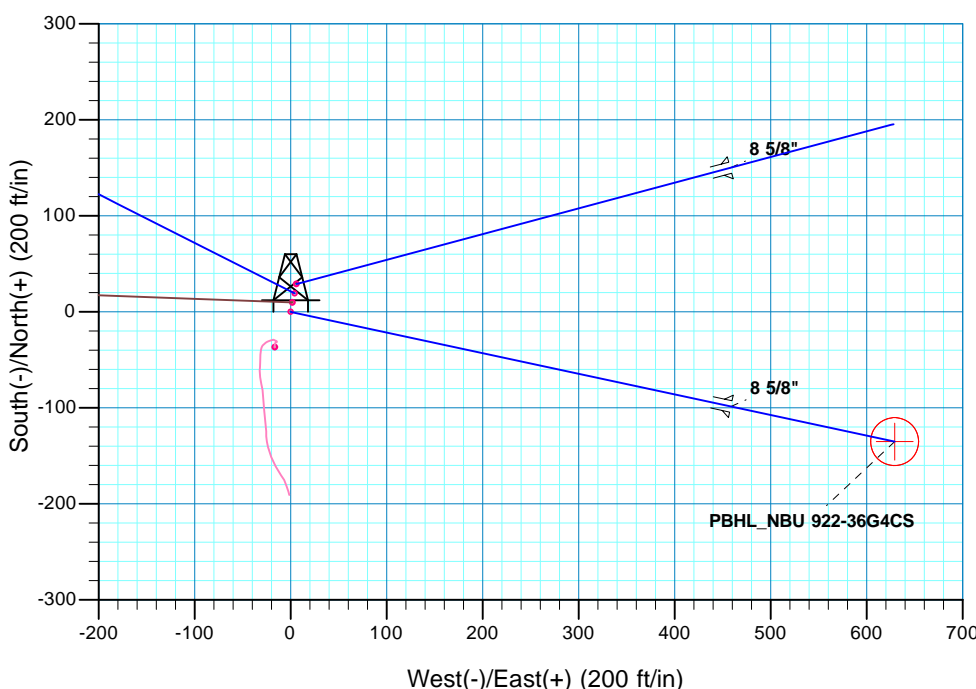
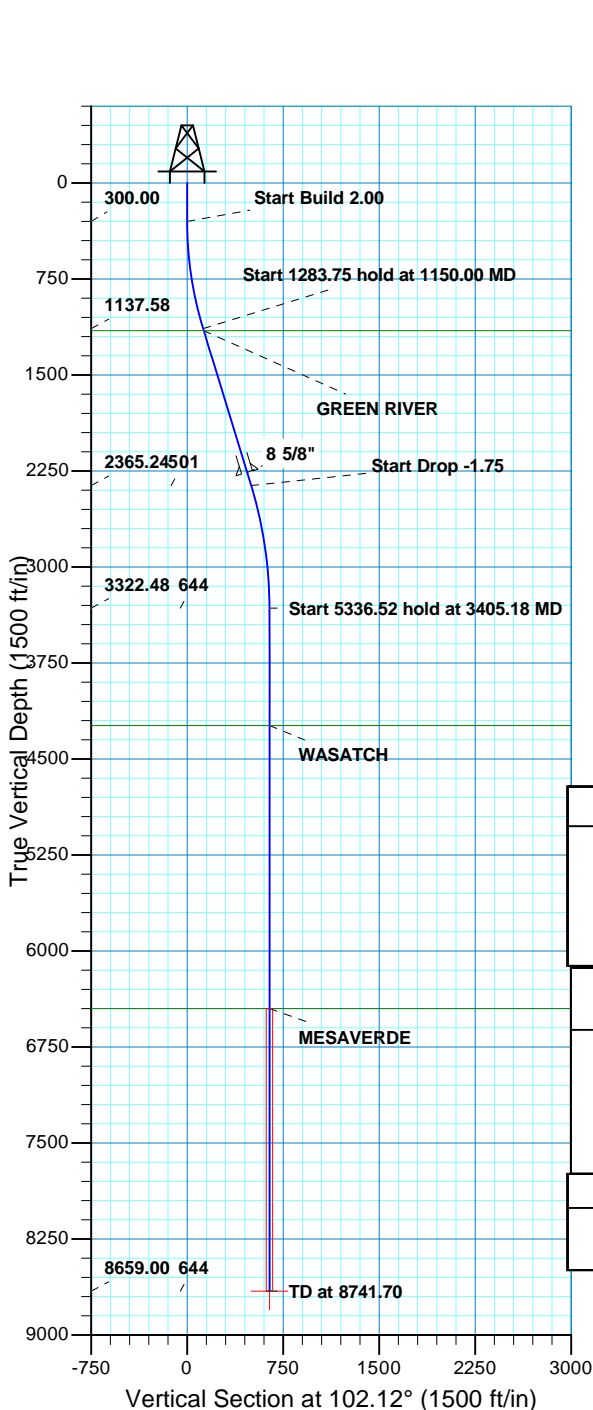
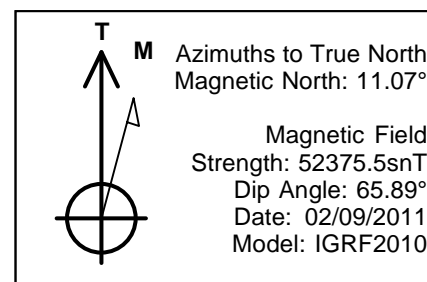
Scale: 1" = 2,000ft | NAD83 USP Central | Sheet No:
Drawn: TL | Date: 3 Dec 2010 | **15**
Revised: | Date: | 15 of 16

**Kerr-McGee Oil & Gas Onshore, LP
WELL PAD – NBU 922-36G3
WELLS – NBU 922-36G4CS, NBU 922-36F4CS,
NBU 922-36F4BS & NBU 922-36G4BS
Section 36, T9S, R22E, S.L.B.&M.**

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah, proceed in an easterly then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45. Exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 14.4 miles to the intersection of the Fidler Road (County B Road 3410) which road intersection is approximately 400 feet northeast of the Mountain Fuel Bridge at the White River. Exit left and proceed in a southeasterly direction along the Fidler Road approximately 4.4 miles to the intersection of the Seven Sisters Road (County B Road 3420). Exit right and proceed in a southerly, then southeasterly direction along the Seven Sisters Road approximately 2.4 miles to a service road to the southwest. Exit right and proceed in a southwesterly, then northerly, then southwesterly direction along the service road approximately 0.7 miles to a second service road to the west. Exit right and proceed in a westerly direction along the second service road approximately 0.1 miles to an access road to the north. Exit right and proceed in a northeasterly direction along the access road approximately 0.1 miles to the proposed well pad.

Total distance from Vernal, Utah to the proposed well location is approximately 45.6 miles in a southerly direction.

WELL DETAILS: NBU 922-36G4CS						
WELL @ 4962.00ft (Original Well Elev)						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	14527629.00	2092221.65	39° 59' 35.250 N	109° 23' 13.006 W	
DESIGN TARGET DETAILS						
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude
PBHL	8659.00	-135.12	629.23	14527505.29	2092853.21	39° 59' 33.914 N
- plan hits target center						
Longitude	Shape					
109° 23' 4.920 W	Circle (Radius: 25.00)					



SECTION DETAILS										
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00		
1150.00	17.00	102.12	1137.58	-26.28	122.39	2.00	102.12	125.18		
2433.75	17.00	102.12	2365.24	-105.08	489.35	0.00	0.00	500.51		
3405.18	0.00	0.00	3322.48	-135.12	629.23	1.75	180.00	643.57		
8741.70	0.00	0.00	8659.00	-135.12	629.23	0.00	0.00	643.57	PBHL_NBU 922-36G4CS	
PROJECT DETAILS: Uintah County, UT UTM12 Geodetic System: Universal Transverse Mercator (US Survey Feet) Datum: NAD 1927 - Western US Ellipsoid: Clarke 1866 Zone: Zone 12N (114 W to 108 W) Location: SECTION 36 T9S R22E System Datum: Mean Sea Level						FORMATION TOP DETAILS				
						TVDPath	MDPath	Formation		
						1154.00	1167.17	GREEN RIVER		
						4240.00	4322.70	WASATCH		
						6451.00	6533.70	MESAVERDE		
CASING DETAILS										
			TVD	MD	Name	Size				
			2263.00	2326.84	8 5/8"	8.625				



Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12

NBU 922-36G3 PAD

NBU 922-36G4CS

OH

Plan: PLAN #1 2-8-11 RHS

Standard Planning Report

09 February, 2011





SDI Planning Report



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 922-36G4CS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	WELL @ 4962.00ft (Original Well Elev)
Project:	Uintah County, UT UTM12	MD Reference:	WELL @ 4962.00ft (Original Well Elev)
Site:	NBU 922-36G3 PAD	North Reference:	True
Well:	NBU 922-36G4CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 2-8-11 RHS		

Project	Uintah County, UT UTM12		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 - Western US		
Map Zone:	Zone 12N (114 W to 108 W)		

Site	NBU 922-36G3 PAD, SECTION 36 T9S R22E		
Site Position:		Northing:	14,527,629.00 usft
From:	Lat/Long	Easting:	2,092,221.64 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in
		Latitude:	39° 59' 35.250 N
		Longitude:	109° 23' 13.006 W
		Grid Convergence:	1.04 °

Well	NBU 922-36G4CS, 2434 FNL 2447 FEL		
Well Position	+N/-S	0.00 ft	Northing: 14,527,629.00 usft
	+E/-W	0.00 ft	Easting: 2,092,221.64 usft
Position Uncertainty	0.00 ft	Wellhead Elevation:	Latitude: 39° 59' 35.250 N
			Longitude: 109° 23' 13.006 W
			Ground Level: 4,958.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	02/09/2011	11.07	65.89	52,376

Design	PLAN #1 2-8-11 RHS			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	102.12

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,150.00	17.00	102.12	1,137.58	-26.28	122.39	2.00	2.00	0.00	102.12	
2,433.75	17.00	102.12	2,365.24	-105.08	489.35	0.00	0.00	0.00	0.00	
3,405.18	0.00	0.00	3,322.48	-135.12	629.23	1.75	-1.75	0.00	180.00	
8,741.70	0.00	0.00	8,659.00	-135.12	629.23	0.00	0.00	0.00	0.00	PBHL_NBU 922-36G

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 922-36G4CS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	WELL @ 4962.00ft (Original Well Elev)
Project:	Uintah County, UT UTM12	MD Reference:	WELL @ 4962.00ft (Original Well Elev)
Site:	NBU 922-36G3 PAD	North Reference:	True
Well:	NBU 922-36G4CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 2-8-11 RHS		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
400.00	2.00	102.12	399.98	-0.37	1.71	1.75	2.00	2.00	0.00
500.00	4.00	102.12	499.84	-1.47	6.82	6.98	2.00	2.00	0.00
600.00	6.00	102.12	599.45	-3.29	15.34	15.69	2.00	2.00	0.00
700.00	8.00	102.12	698.70	-5.85	27.26	27.88	2.00	2.00	0.00
800.00	10.00	102.12	797.47	-9.14	42.55	43.52	2.00	2.00	0.00
900.00	12.00	102.12	895.62	-13.14	61.21	62.60	2.00	2.00	0.00
1,000.00	14.00	102.12	993.06	-17.87	83.20	85.10	2.00	2.00	0.00
1,100.00	16.00	102.12	1,089.64	-23.30	108.50	110.98	2.00	2.00	0.00
1,150.00	17.00	102.12	1,137.58	-26.28	122.39	125.18	2.00	2.00	0.00
Start 1283.75 hold at 1150.00 MD									
1,167.17	17.00	102.12	1,154.00	-27.33	127.29	130.20	0.00	0.00	0.00
GREEN RIVER									
1,200.00	17.00	102.12	1,185.40	-29.35	136.68	139.80	0.00	0.00	0.00
1,300.00	17.00	102.12	1,281.03	-35.49	165.27	169.03	0.00	0.00	0.00
1,400.00	17.00	102.12	1,376.66	-41.63	193.85	198.27	0.00	0.00	0.00
1,500.00	17.00	102.12	1,472.29	-47.77	222.44	227.51	0.00	0.00	0.00
1,600.00	17.00	102.12	1,567.92	-53.90	251.02	256.74	0.00	0.00	0.00
1,700.00	17.00	102.12	1,663.55	-60.04	279.61	285.98	0.00	0.00	0.00
1,800.00	17.00	102.12	1,759.18	-66.18	308.19	315.22	0.00	0.00	0.00
1,900.00	17.00	102.12	1,854.81	-72.32	336.78	344.46	0.00	0.00	0.00
2,000.00	17.00	102.12	1,950.44	-78.46	365.36	373.69	0.00	0.00	0.00
2,100.00	17.00	102.12	2,046.07	-84.60	393.95	402.93	0.00	0.00	0.00
2,200.00	17.00	102.12	2,141.70	-90.73	422.54	432.17	0.00	0.00	0.00
2,300.00	17.00	102.12	2,237.33	-96.87	451.12	461.41	0.00	0.00	0.00
2,326.84	17.00	102.12	2,263.00	-98.52	458.79	469.25	0.00	0.00	0.00
8 5/8"									
2,400.00	17.00	102.12	2,332.96	-103.01	479.71	490.64	0.00	0.00	0.00
2,433.75	17.00	102.12	2,365.24	-105.08	489.35	500.51	0.00	0.00	0.00
Start Drop -1.75									
2,500.00	15.84	102.12	2,428.79	-109.01	507.66	519.24	1.75	-1.75	0.00
2,600.00	14.09	102.12	2,525.39	-114.44	532.91	545.06	1.75	-1.75	0.00
2,700.00	12.34	102.12	2,622.74	-119.24	555.26	567.92	1.75	-1.75	0.00
2,800.00	10.59	102.12	2,720.74	-123.41	574.70	587.80	1.75	-1.75	0.00
2,900.00	8.84	102.12	2,819.30	-126.95	591.20	604.67	1.75	-1.75	0.00
3,000.00	7.09	102.12	2,918.33	-129.86	604.74	618.53	1.75	-1.75	0.00
3,100.00	5.34	102.12	3,017.74	-132.13	615.33	629.36	1.75	-1.75	0.00
3,200.00	3.59	102.12	3,117.43	-133.77	622.94	637.14	1.75	-1.75	0.00
3,300.00	1.84	102.12	3,217.32	-134.76	627.57	641.88	1.75	-1.75	0.00
3,400.00	0.09	102.12	3,317.30	-135.12	629.22	643.57	1.75	-1.75	0.00
3,405.18	0.00	0.00	3,322.48	-135.12	629.23	643.57	1.75	-1.75	0.00
Start 5336.52 hold at 3405.18 MD									
3,500.00	0.00	0.00	3,417.30	-135.12	629.23	643.57	0.00	0.00	0.00
3,600.00	0.00	0.00	3,517.30	-135.12	629.23	643.57	0.00	0.00	0.00
3,700.00	0.00	0.00	3,617.30	-135.12	629.23	643.57	0.00	0.00	0.00
3,800.00	0.00	0.00	3,717.30	-135.12	629.23	643.57	0.00	0.00	0.00
3,900.00	0.00	0.00	3,817.30	-135.12	629.23	643.57	0.00	0.00	0.00
4,000.00	0.00	0.00	3,917.30	-135.12	629.23	643.57	0.00	0.00	0.00
4,100.00	0.00	0.00	4,017.30	-135.12	629.23	643.57	0.00	0.00	0.00



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 922-36G4CS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	WELL @ 4962.00ft (Original Well Elev)
Project:	Uintah County, UT UTM12	MD Reference:	WELL @ 4962.00ft (Original Well Elev)
Site:	NBU 922-36G3 PAD	North Reference:	True
Well:	NBU 922-36G4CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 2-8-11 RHS		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,200.00	0.00	0.00	4,117.30	-135.12	629.23	643.57	0.00	0.00	0.00
4,300.00	0.00	0.00	4,217.30	-135.12	629.23	643.57	0.00	0.00	0.00
4,322.70	0.00	0.00	4,240.00	-135.12	629.23	643.57	0.00	0.00	0.00
WASATCH									
4,400.00	0.00	0.00	4,317.30	-135.12	629.23	643.57	0.00	0.00	0.00
4,500.00	0.00	0.00	4,417.30	-135.12	629.23	643.57	0.00	0.00	0.00
4,600.00	0.00	0.00	4,517.30	-135.12	629.23	643.57	0.00	0.00	0.00
4,700.00	0.00	0.00	4,617.30	-135.12	629.23	643.57	0.00	0.00	0.00
4,800.00	0.00	0.00	4,717.30	-135.12	629.23	643.57	0.00	0.00	0.00
4,900.00	0.00	0.00	4,817.30	-135.12	629.23	643.57	0.00	0.00	0.00
5,000.00	0.00	0.00	4,917.30	-135.12	629.23	643.57	0.00	0.00	0.00
5,100.00	0.00	0.00	5,017.30	-135.12	629.23	643.57	0.00	0.00	0.00
5,200.00	0.00	0.00	5,117.30	-135.12	629.23	643.57	0.00	0.00	0.00
5,300.00	0.00	0.00	5,217.30	-135.12	629.23	643.57	0.00	0.00	0.00
5,400.00	0.00	0.00	5,317.30	-135.12	629.23	643.57	0.00	0.00	0.00
5,500.00	0.00	0.00	5,417.30	-135.12	629.23	643.57	0.00	0.00	0.00
5,600.00	0.00	0.00	5,517.30	-135.12	629.23	643.57	0.00	0.00	0.00
5,700.00	0.00	0.00	5,617.30	-135.12	629.23	643.57	0.00	0.00	0.00
5,800.00	0.00	0.00	5,717.30	-135.12	629.23	643.57	0.00	0.00	0.00
5,900.00	0.00	0.00	5,817.30	-135.12	629.23	643.57	0.00	0.00	0.00
6,000.00	0.00	0.00	5,917.30	-135.12	629.23	643.57	0.00	0.00	0.00
6,100.00	0.00	0.00	6,017.30	-135.12	629.23	643.57	0.00	0.00	0.00
6,200.00	0.00	0.00	6,117.30	-135.12	629.23	643.57	0.00	0.00	0.00
6,300.00	0.00	0.00	6,217.30	-135.12	629.23	643.57	0.00	0.00	0.00
6,400.00	0.00	0.00	6,317.30	-135.12	629.23	643.57	0.00	0.00	0.00
6,500.00	0.00	0.00	6,417.30	-135.12	629.23	643.57	0.00	0.00	0.00
6,533.70	0.00	0.00	6,451.00	-135.12	629.23	643.57	0.00	0.00	0.00
MESAVERDE									
6,600.00	0.00	0.00	6,517.30	-135.12	629.23	643.57	0.00	0.00	0.00
6,700.00	0.00	0.00	6,617.30	-135.12	629.23	643.57	0.00	0.00	0.00
6,800.00	0.00	0.00	6,717.30	-135.12	629.23	643.57	0.00	0.00	0.00
6,900.00	0.00	0.00	6,817.30	-135.12	629.23	643.57	0.00	0.00	0.00
7,000.00	0.00	0.00	6,917.30	-135.12	629.23	643.57	0.00	0.00	0.00
7,100.00	0.00	0.00	7,017.30	-135.12	629.23	643.57	0.00	0.00	0.00
7,200.00	0.00	0.00	7,117.30	-135.12	629.23	643.57	0.00	0.00	0.00
7,300.00	0.00	0.00	7,217.30	-135.12	629.23	643.57	0.00	0.00	0.00
7,400.00	0.00	0.00	7,317.30	-135.12	629.23	643.57	0.00	0.00	0.00
7,500.00	0.00	0.00	7,417.30	-135.12	629.23	643.57	0.00	0.00	0.00
7,600.00	0.00	0.00	7,517.30	-135.12	629.23	643.57	0.00	0.00	0.00
7,700.00	0.00	0.00	7,617.30	-135.12	629.23	643.57	0.00	0.00	0.00
7,800.00	0.00	0.00	7,717.30	-135.12	629.23	643.57	0.00	0.00	0.00
7,900.00	0.00	0.00	7,817.30	-135.12	629.23	643.57	0.00	0.00	0.00
8,000.00	0.00	0.00	7,917.30	-135.12	629.23	643.57	0.00	0.00	0.00
8,100.00	0.00	0.00	8,017.30	-135.12	629.23	643.57	0.00	0.00	0.00
8,200.00	0.00	0.00	8,117.30	-135.12	629.23	643.57	0.00	0.00	0.00
8,300.00	0.00	0.00	8,217.30	-135.12	629.23	643.57	0.00	0.00	0.00
8,400.00	0.00	0.00	8,317.30	-135.12	629.23	643.57	0.00	0.00	0.00
8,500.00	0.00	0.00	8,417.30	-135.12	629.23	643.57	0.00	0.00	0.00
8,600.00	0.00	0.00	8,517.30	-135.12	629.23	643.57	0.00	0.00	0.00
8,700.00	0.00	0.00	8,617.30	-135.12	629.23	643.57	0.00	0.00	0.00
8,741.70	0.00	0.00	8,659.00	-135.12	629.23	643.57	0.00	0.00	0.00
TD at 8741.70 - PBHL_NBU 922-36G4CS									



SDI Planning Report



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 922-36G4CS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	WELL @ 4962.00ft (Original Well Elev)
Project:	Uintah County, UT UTM12	MD Reference:	WELL @ 4962.00ft (Original Well Elev)
Site:	NBU 922-36G3 PAD	North Reference:	True
Well:	NBU 922-36G4CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 2-8-11 RHS		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
PBHL_NBU 922-36G4C	0.00	0.00	8,659.00	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
- plan hits target center									
- Circle (radius 25.00)									

Casing Points					
Measured Depth	Vertical Depth			Casing Diameter	Hole Diameter
(ft)	(ft)		Name	(in)	(in)
2,326.84	2,263.00	8 5/8"		8.625	11.000

Formations					
Measured Depth	Vertical Depth			Dip	Dip Direction
(ft)	(ft)		Name	(°)	(°)
1,167.17	1,154.00	GREEN RIVER			
4,322.70	4,240.00	WASATCH			
6,533.70	6,451.00	MESAVERDE			

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	
300.00	300.00	0.00	0.00	Start Build 2.00
1,150.00	1,137.58	-26.28	122.39	Start 1283.75 hold at 1150.00 MD
2,433.75	2,365.24	-105.08	489.35	Start Drop -1.75
3,405.18	3,322.48	-135.12	629.23	Start 5336.52 hold at 3405.18 MD
8,741.70	8,659.00	-135.12	629.23	TD at 8741.70



Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12

NBU 922-36G3 PAD

NBU 922-36G4CS

OH

Plan: PLAN #1 2-8-11 RHS

Standard Planning Report - Geographic

09 February, 2011



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 922-36G4CS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	WELL @ 4962.00ft (Original Well Elev)
Project:	Uintah County, UT UTM12	MD Reference:	WELL @ 4962.00ft (Original Well Elev)
Site:	NBU 922-36G3 PAD	North Reference:	True
Well:	NBU 922-36G4CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 2-8-11 RHS		

Project	Uintah County, UT UTM12		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 - Western US		
Map Zone:	Zone 12N (114 W to 108 W)		

Site		NBU 922-36G3 PAD, SECTION 36 T9S R22E			
Site Position:		Northing:	14,527,629.00 usft	Latitude:	39° 59' 35.250 N
From:	Lat/Long	Easting:	2,092,221.64 usft	Longitude:	109° 23' 13.006 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	1.04

Well	NBU 922-36G4CS, 2434 FNL 2447 FEL					
Well Position	+N/-S	0.00 ft	Northing:	14,527,629.00 usft	Latitude:	39° 59' 35.250 N
	+E/-W	0.00 ft	Easting:	2,092,221.64 usft	Longitude:	109° 23' 13.006 W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	4,958.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	02/09/2011	11.07	65.89	52,376

Design	PLAN #1 2-8-11 RHS			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	102.12

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,150.00	17.00	102.12	1,137.58	-26.28	122.39	2.00	2.00	0.00	102.12	
2,433.75	17.00	102.12	2,365.24	-105.08	489.35	0.00	0.00	0.00	0.00	
3,405.18	0.00	0.00	3,322.48	-135.12	629.23	1.75	-1.75	0.00	180.00	
8,741.70	0.00	0.00	8,659.00	-135.12	629.23	0.00	0.00	0.00	0.00	PBHL_NBU 922-36G-



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 922-36G4CS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	WELL @ 4962.00ft (Original Well Elev)
Project:	Uintah County, UT UTM12	MD Reference:	WELL @ 4962.00ft (Original Well Elev)
Site:	NBU 922-36G3 PAD	North Reference:	True
Well:	NBU 922-36G4CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 2-8-11 RHS		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	14,527,629.00	2,092,221.64	39° 59' 35.250 N	109° 23' 13.006 W
100.00	0.00	0.00	100.00	0.00	0.00	14,527,629.00	2,092,221.64	39° 59' 35.250 N	109° 23' 13.006 W
200.00	0.00	0.00	200.00	0.00	0.00	14,527,629.00	2,092,221.64	39° 59' 35.250 N	109° 23' 13.006 W
300.00	0.00	0.00	300.00	0.00	0.00	14,527,629.00	2,092,221.64	39° 59' 35.250 N	109° 23' 13.006 W
Start Build 2.00									
400.00	2.00	102.12	399.98	-0.37	1.71	14,527,628.67	2,092,223.35	39° 59' 35.246 N	109° 23' 12.984 W
500.00	4.00	102.12	499.84	-1.47	6.82	14,527,627.66	2,092,228.49	39° 59' 35.236 N	109° 23' 12.918 W
600.00	6.00	102.12	599.45	-3.29	15.34	14,527,625.99	2,092,237.04	39° 59' 35.217 N	109° 23' 12.808 W
700.00	8.00	102.12	698.70	-5.85	27.26	14,527,623.64	2,092,249.00	39° 59' 35.192 N	109° 23' 12.655 W
800.00	10.00	102.12	797.47	-9.14	42.55	14,527,620.64	2,092,264.35	39° 59' 35.160 N	109° 23' 12.459 W
900.00	12.00	102.12	895.62	-13.14	61.21	14,527,616.97	2,092,283.08	39° 59' 35.120 N	109° 23' 12.219 W
1,000.00	14.00	102.12	993.06	-17.87	83.20	14,527,612.65	2,092,305.15	39° 59' 35.073 N	109° 23' 11.936 W
1,100.00	16.00	102.12	1,089.64	-23.30	108.50	14,527,607.67	2,092,330.55	39° 59' 35.020 N	109° 23' 11.611 W
1,150.00	17.00	102.12	1,137.58	-26.28	122.39	14,527,604.94	2,092,344.49	39° 59' 34.990 N	109° 23' 11.433 W
Start 1283.75 hold at 1150.00 MD									
1,167.17	17.00	102.12	1,154.00	-27.33	127.29	14,527,603.98	2,092,349.41	39° 59' 34.980 N	109° 23' 11.370 W
GREEN RIVER									
1,200.00	17.00	102.12	1,185.40	-29.35	136.68	14,527,602.13	2,092,358.83	39° 59' 34.960 N	109° 23' 11.249 W
1,300.00	17.00	102.12	1,281.03	-35.49	165.27	14,527,596.51	2,092,387.52	39° 59' 34.899 N	109° 23' 10.882 W
1,400.00	17.00	102.12	1,376.66	-41.63	193.85	14,527,590.89	2,092,416.21	39° 59' 34.839 N	109° 23' 10.515 W
1,500.00	17.00	102.12	1,472.29	-47.77	222.44	14,527,585.27	2,092,444.91	39° 59' 34.778 N	109° 23' 10.147 W
1,600.00	17.00	102.12	1,567.92	-53.90	251.02	14,527,579.65	2,092,473.60	39° 59' 34.717 N	109° 23' 9.780 W
1,700.00	17.00	102.12	1,663.55	-60.04	279.61	14,527,574.03	2,092,502.29	39° 59' 34.657 N	109° 23' 9.413 W
1,800.00	17.00	102.12	1,759.18	-66.18	308.19	14,527,568.41	2,092,530.98	39° 59' 34.596 N	109° 23' 9.045 W
1,900.00	17.00	102.12	1,854.81	-72.32	336.78	14,527,562.79	2,092,559.67	39° 59' 34.535 N	109° 23' 8.678 W
2,000.00	17.00	102.12	1,950.44	-78.46	365.36	14,527,557.17	2,092,588.37	39° 59' 34.474 N	109° 23' 8.311 W
2,100.00	17.00	102.12	2,046.07	-84.60	393.95	14,527,551.55	2,092,617.06	39° 59' 34.414 N	109° 23' 7.943 W
2,200.00	17.00	102.12	2,141.70	-90.73	422.54	14,527,545.93	2,092,645.75	39° 59' 34.353 N	109° 23' 7.576 W
2,300.00	17.00	102.12	2,237.33	-96.87	451.12	14,527,540.31	2,092,674.44	39° 59' 34.292 N	109° 23' 7.209 W
2,326.84	17.00	102.12	2,263.00	-98.52	458.79	14,527,538.80	2,092,682.14	39° 59' 34.276 N	109° 23' 7.110 W
8 5/8"									
2,400.00	17.00	102.12	2,332.96	-103.01	479.71	14,527,534.69	2,092,703.13	39° 59' 34.232 N	109° 23' 6.841 W
2,433.75	17.00	102.12	2,365.24	-105.08	489.35	14,527,532.79	2,092,712.82	39° 59' 34.211 N	109° 23' 6.717 W
Start Drop -1.75									
2,500.00	15.84	102.12	2,428.79	-109.01	507.66	14,527,529.19	2,092,731.20	39° 59' 34.172 N	109° 23' 6.482 W
2,600.00	14.09	102.12	2,525.39	-114.44	532.91	14,527,524.23	2,092,756.54	39° 59' 34.119 N	109° 23' 6.158 W
2,700.00	12.34	102.12	2,622.74	-119.24	555.26	14,527,519.84	2,092,778.97	39° 59' 34.071 N	109° 23' 5.870 W
2,800.00	10.59	102.12	2,720.74	-123.41	574.70	14,527,516.01	2,092,798.48	39° 59' 34.030 N	109° 23' 5.621 W
2,900.00	8.84	102.12	2,819.30	-126.95	591.20	14,527,512.77	2,092,815.04	39° 59' 33.995 N	109° 23' 5.409 W
3,000.00	7.09	102.12	2,918.33	-129.86	604.74	14,527,510.11	2,092,828.64	39° 59' 33.966 N	109° 23' 5.235 W
3,100.00	5.34	102.12	3,017.74	-132.13	615.33	14,527,508.03	2,092,839.26	39° 59' 33.944 N	109° 23' 5.099 W
3,200.00	3.59	102.12	3,117.43	-133.77	622.94	14,527,506.53	2,092,846.90	39° 59' 33.928 N	109° 23' 5.001 W
3,300.00	1.84	102.12	3,217.32	-134.76	627.57	14,527,505.62	2,092,851.55	39° 59' 33.918 N	109° 23' 4.941 W
3,400.00	0.09	102.12	3,317.30	-135.12	629.22	14,527,505.30	2,092,853.20	39° 59' 33.914 N	109° 23' 4.920 W
3,405.18	0.00	0.00	3,322.48	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
Start 5336.52 hold at 3405.18 MD									
3,500.00	0.00	0.00	3,417.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
3,600.00	0.00	0.00	3,517.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
3,700.00	0.00	0.00	3,617.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
3,800.00	0.00	0.00	3,717.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
3,900.00	0.00	0.00	3,817.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
4,000.00	0.00	0.00	3,917.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
4,100.00	0.00	0.00	4,017.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
4,200.00	0.00	0.00	4,117.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 922-36G4CS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	WELL @ 4962.00ft (Original Well Elev)
Project:	Uintah County, UT UTM12	MD Reference:	WELL @ 4962.00ft (Original Well Elev)
Site:	NBU 922-36G3 PAD	North Reference:	True
Well:	NBU 922-36G4CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 2-8-11 RHS		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,300.00	0.00	0.00	4,217.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
4,322.70	0.00	0.00	4,240.00	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
WASATCH									
4,400.00	0.00	0.00	4,317.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
4,500.00	0.00	0.00	4,417.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
4,600.00	0.00	0.00	4,517.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
4,700.00	0.00	0.00	4,617.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
4,800.00	0.00	0.00	4,717.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
4,900.00	0.00	0.00	4,817.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
5,000.00	0.00	0.00	4,917.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
5,100.00	0.00	0.00	5,017.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
5,200.00	0.00	0.00	5,117.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
5,300.00	0.00	0.00	5,217.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
5,400.00	0.00	0.00	5,317.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
5,500.00	0.00	0.00	5,417.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
5,600.00	0.00	0.00	5,517.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
5,700.00	0.00	0.00	5,617.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
5,800.00	0.00	0.00	5,717.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
5,900.00	0.00	0.00	5,817.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
6,000.00	0.00	0.00	5,917.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
6,100.00	0.00	0.00	6,017.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
6,200.00	0.00	0.00	6,117.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
6,300.00	0.00	0.00	6,217.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
6,400.00	0.00	0.00	6,317.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
6,500.00	0.00	0.00	6,417.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
6,533.70	0.00	0.00	6,451.00	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
MESAVERDE									
6,600.00	0.00	0.00	6,517.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
6,700.00	0.00	0.00	6,617.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
6,800.00	0.00	0.00	6,717.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
6,900.00	0.00	0.00	6,817.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
7,000.00	0.00	0.00	6,917.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
7,100.00	0.00	0.00	7,017.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
7,200.00	0.00	0.00	7,117.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
7,300.00	0.00	0.00	7,217.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
7,400.00	0.00	0.00	7,317.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
7,500.00	0.00	0.00	7,417.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
7,600.00	0.00	0.00	7,517.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
7,700.00	0.00	0.00	7,617.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
7,800.00	0.00	0.00	7,717.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
7,900.00	0.00	0.00	7,817.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
8,000.00	0.00	0.00	7,917.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
8,100.00	0.00	0.00	8,017.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
8,200.00	0.00	0.00	8,117.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
8,300.00	0.00	0.00	8,217.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
8,400.00	0.00	0.00	8,317.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
8,500.00	0.00	0.00	8,417.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
8,600.00	0.00	0.00	8,517.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
8,700.00	0.00	0.00	8,617.30	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
8,741.70	0.00	0.00	8,659.00	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
TD at 8741.70 - PBHL_NBU 922-36G4CS									

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 922-36G4CS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	WELL @ 4962.00ft (Original Well Elev)
Project:	Uintah County, UT UTM12	MD Reference:	WELL @ 4962.00ft (Original Well Elev)
Site:	NBU 922-36G3 PAD	North Reference:	True
Well:	NBU 922-36G4CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 2-8-11 RHS		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
PBHL_NBU 922-36G4C	0.00	0.00	8,659.00	-135.12	629.23	14,527,505.29	2,092,853.21	39° 59' 33.914 N	109° 23' 4.920 W
- plan hits target center									
- Circle (radius 25.00)									

Casing Points					
	Measured Depth	Vertical Depth		Casing Diameter	Hole Diameter
	(ft)	(ft)	Name	(in)	(in)
	2,326.84	2,263.00	8 5/8"	8.625	11.000

Formations					
	Measured Depth	Vertical Depth		Dip	Dip Direction
	(ft)	(ft)	Name	(°)	(°)
	1,167.17	1,154.00	GREEN RIVER		
	4,322.70	4,240.00	WASATCH		
	6,533.70	6,451.00	MESAVERDE		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
300.00	300.00	0.00	0.00	Start Build 2.00	
1,150.00	1,137.58	-26.28	122.39	Start 1283.75 hold at 1150.00 MD	
2,433.75	2,365.24	-105.08	489.35	Start Drop -1.75	
3,405.18	3,322.48	-135.12	629.23	Start 5336.52 hold at 3405.18 MD	
8,741.70	8,659.00	-135.12	629.23	TD at 8741.70	

NBU 922-36F4BS

Surface: 2414' FNL 2443' FEL (SW/4NE/4)
BHL: 2070' FNL 2149' FWL (SE/4NW/4)

NBU 922-36F4CS

Surface: 2424' FNL 2445' FEL (SW/4NE/4)
BHL: 2401' FNL 2149' FWL (SE/4NW/4)

NBU 922-36G4BS

Surface: 2405' FNL 2441' FEL (SW/4NE/4)
BHL: 2235' FNL 1818' FEL (SW/4NE/4)

NBU 922-36G4CS

Surface: 2434' FNL 2447' FEL (SW/4NE/4)
BHL: 2566' FNL 1818' FEL (SW/4NE/4)

Pad: NBU 922-36G3 Pad
Section 36 T09S R22E
Mineral Lease: ML-22650

Uintah County, Utah
Operator: Kerr-McGee Oil & Gas Onshore LP

MULTI-POINT SURFACE USE PLAN of OPERATIONS (SUPO)

This SUPO contains surface operating procedures for Kerr-McGee Oil & Gas Onshore LP (KMG), a wholly owned subsidiary of Anadarko Petroleum Corporation (APC) pertaining to actions that involve the State of Utah School and Institutional Trust Lands Administration (SITLA) in the development of minerals leased to KMG (including, but not limited to, APDs/SULAs/ROEs/ROWs and/or easements).

See associated Utah Division of Oil, Gas, and Mining (UDOGM) Form 3(s), plats, maps, and other attachments for site-specific information on projects represented herein.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

A. Existing Roads:

Existing roads consist of county roads and improved/unimproved lease roads. KMG will maintain existing roads in a condition that is the same as or better than before operations began and in a safe and usable condition. Maintenance of existing roads will continue until final abandonment and reclamation of well pads and/or other facilities. The road maintenance may include, but is not limited to, blading, ditching, culvert installation/cleanout, surfacing, and dust control.

Typically, roads, gathering lines and electrical distribution lines will occupy common disturbance corridors and roadways will be used as working space. All disturbances located in the same corridor will overlap each

NBU 922-36F4BS / 36F4CS/
36G4BS/ 36G4CS

Surface Use Plan of Operations
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other to the maximum extent possible; in no case will the maximum disturbance width of the access road and utility corridors exceed 50', unless otherwise approved.

B. Planned Access Roads:

No new access road is proposed. (see Topo Map B). Applicable Uintah County encroachment and/or pipeline crossing permits will be obtained prior to construction/development. No other pipelines will be crossed at this location.

If there are roads that are new or to be reconstructed, they will be located, designed, and maintained to meet the standards of SITLA and other commonly accepted Best Management Practices (BMPs). If a new road/corridor were to cross a water of the United States, KMG will adhere to the requirements of applicable Nationwide or Individual Permits of the Department of Army Corps of Engineers.

During the onsite, turnouts, major cut and fills, culverts, bridges, gates, cattle guards, low water crossings, or modifications needed to existing infrastructure/facilities were determined, as applicable, are typically shown on attached Exhibits and Topo maps.

C. Location of Existing and Proposed Facilities:

This pad will expand the existing pad for the NBU 922-36G. The NBU 922-36G well location is a vertical producing well according to Utah Division of Oil, Gas and Mining (UDOGM) records as of April 15, 2011.

Production facilities (see Well Pad Design Summary and Facilities Diagram):

Production facilities will be installed on the disturbed portion of the well pad and may include bermed components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will be constructed of compacted subsoil or corrugated metal, impervious, designed to hold 110% of the capacity of the largest tank, and be independent of the back cut. All permanent (on-site six months or longer) above ground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with SITLA.

Production tanks will be constructed, maintained, and operated to prevent unauthorized surface or subsurface discharges of liquids and to prevent livestock or wildlife entry. The tanks are not to be used for disposal of liquids from additional sources without prior approval of UDOGM.

Gathering facilities:

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36G4BS/ 36G4CS**

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The following pipeline transmission facilities will apply if the well is productive (see Topo D):

The total gas gathering (steel line pipe with fusion bond epoxy coating) pipeline distances from the meter to the tie in point is $\pm 1,720'$ and the individual segments are broken up as follows:

- $\pm 675'$ (0.1 miles) –New 6" buried gas pipeline from the meter to the edge of the pad. Please refer to Topo D2.
- $\pm 485'$ (0.09 miles) –New 6" buried gas pipeline from the edge of pad to the proposed 16" tie-in at the 36I intersection. Please refer to Topo D.
- $\pm 560'$ (0.1 miles) –New 16" buried gas pipeline from the proposed 16" tie-in at the 36I intersection to the tie-in at the 36O intersection. Please refer to Topo D.

The total liquid gathering pipeline distance from the separator to the tie in point is $\pm 1,720'$ and the individual segments are broken up as follows:

- $\pm 675'$ (0.1 miles) –New 6" buried liquid pipeline from the separator to the edge of the pad. Please refer to Topo D2.
- $\pm 485'$ (0.09 miles) –New 6" buried liquid pipeline from the edge of pad to the proposed 6" tie-in at the 36I intersection. Please refer to Topo D.
- $\pm 560'$ (0.1 miles) –New 6" buried liquid pipeline from the proposed 6" tie-in at the 36I intersection to the tie-in at the 36O intersection. Please refer to Topo D.

The liquid gathering lines will be made of polyethylene or a composite polyethylene/steel or polyethylene/fiberglass that is not subject to internal or external pipe corrosion. The content of the produced fluids to be transferred by the liquid gathering system will be approximately 92% produced water and 8% condensate. Trunk line valve connections for the water gathering system will be below ground but accessible from the surface in order to prevent freezing during winter time.

The proposed pipelines will be buried and will include gas gathering and liquid gathering pipelines in the same trench. Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. KMG requests a permanent 30' right-of-way adjacent to the road for life-of-project for maintenance, repairs, and/or upgrades, no additional right-of-way will be needed beyond the 30'. Where the pipeline is not adjacent to the road or well pad, KMG requests a temporary 45' construction right-of-way and 30' permanent right-of-way.

The proposed trench width for the pipeline would range from 18-48 inches and will be excavated to a depth of 48 to 60 inches of normal soil cover or 24 inches of cover in consolidated rock. During construction blasting may occur along the proposed right-of-way where trenching equipment cannot cut into the bedrock. Large debris and rocks removed from the earth during trenching and blasting that could not be returned to the trench would be distributed evenly and naturally in the project area. The proposed pipelines will be pressure tested pneumatically (depending on size) or with fluids (either fresh or produced). If fluids are used, there will be no discharge to the surface.

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36G4BS/ 36G4CS

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Pipeline signs will be installed along the right-of-way to indicate the pipeline proximity and ownership, as well as to provide emergency contact phone numbers. Above ground valves, T's, and/or cathodic protection will be installed at various locations for connection, corrosion prevention and/or for safety purposes.

D. Location and Type of Water Supply:

Water for drilling purposes will be obtained from one of the following sources:

- Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim number 43-8496, application number 53617.
- Price Water Pumping Inc. Green River and White River, various sources, Water Right Number 49-1659, application number: a35745.

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

E. Source of Construction Materials:

Construction operations will typically be completed with native materials found on location. If needed, construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source and described in subsequent Sundry requests. No construction materials will be removed from State lands without prior approval from SITLA.

F. Methods of Handling Waste Materials:

Should the well be productive, produced water will be contained in a water tank and will be transported by pipeline and/or truck to an approved disposal sites facilities and/or Salt Water Disposal (SWD) injection well. Currently, those facilities are:

RNI in Sec. 5 T9S R22E
Ace Oilfield in Sec. 2 T6S R20E
MC&MC in Sec. 12 T6S R19E
Pipeline Facility in Sec. 36 T9S R20E
Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E
Bonanza Evaporation Pond in Sec. 2 T10S R23E
Ouray #1 SWD in Sec. 1 T9S R21E
NBU 159 SWD in Sec. 35 T9S R21E
CIGE 112D SWD in Sec. 19 T9S R21E
CIGE 114 SWD in Sec. 34 T9S R21E
NBU 921-34K SWD in Sec. 34 T9S R21E

**NBU 922-36F4BS / 36F4CS/
36G4BS/ 36G4CS**

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NBU 921-33F SWD in Sec. 33 T9S R21E
NBU 921-34L SWD in Sec. 34 T9S R21E

Drill cuttings and/or fluids will be contained in the reserve/frac pit. Cuttings will be buried in pit(s) upon closure. Unless otherwise approved, no oil or other oil-based drilling additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water (as specified above), biodegradable polymer soap, bentonite clay, and/or non-toxic additives will be used in the mud system.

Pits will be constructed to minimize the accumulation of surface runoff. Should fluid hydrocarbons be encountered during drilling, completions or well testing, product will either be contained in test tanks on the well site or evacuated by vacuum trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be released into a pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternate is approved by SITLA. Should timely removal prove infeasible, the pit will be netted with mesh no larger than 1 inch until such time as hydrocarbons can be removed. Hydrocarbon removal will also take place prior to the closure of the pit, unless authorization is provided for disposal via alternative pit closure methods (e.g. solidification).

The reserve and/or fracture stimulation pit will be lined with a synthetic material 20-mil or thicker. The liner will be installed over smooth fill subgrade that is free of pockets, loose rocks, or other materials (i.e. sand, sifted dirt, bentonite, straw, etc.) that could damage the liner. Any additional pits necessary for subsequent operations, such as temporary flare or workover pits, will be contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of work at a well location.

For the protection of livestock and wildlife, all open pits and cellars will be fenced/covered to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after six (6) months from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Additional drying methods may include fly-ash solidification or sprinkler evaporation. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift. Reserve pit liners will be cut off or folded as near to the mud surface as possible and as safety considerations allow and buried on location.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly,

**NBU 922-36F4BS / 36F4CS/
36G4BS/ 36G4CS**

**Surface Use Plan of Operations
Page 6**

and transported to an approved disposal facility.

Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

Any undesirable event, including accidental release of fluids, or release in excess of reportable quantities, will be managed according to the notification requirements of UDOGMs "Reporting Oil and Gas Undesirable Events" rule. Where State wells are participatory to a Federal agreement, according to NTL-3A, the appropriate Federal agencies will be notified.

Materials Management

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term "hazardous materials" as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities and may be kept in limited quantities on drilling sites and well locations for short periods of time during drilling or completion activities.

G. Ancillary Facilities:

None are anticipated.

H. Well Site Layout (see Well Pad Design Summary):

The location, orientation and aerial extent of each drill pad, reserve/completion/flare pit, access road ingress/egress points, drilling rig, dikes/ditches, existing wells/infrastructure, proposed cuts and fills, and topsoil and spoil material stockpile locations are depicted on the exhibits for each project where applicable. Site-specific conditions may require slight deviation in actual equipment and facility layout; however, the area of disturbance, as described in the survey, will not be exceeded.

Coordinates are provided in the National Spatial Reference System, North American Datum, 1927 (NAD27) or latest edition. Distances are depicted on each plat to the nearest two adjacent section lines.

I. Plans for Reclamation of the Surface:

Surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. This reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

Reclamation activities in both phases may include but are not limited to: re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

Interim Reclamation

Interim reclamation includes pit closure, re-contouring (where possible), soil bed preparation, topsoil placement, seeding, and/or weed control.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. All stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where possible, the land surface will be left “rough” after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit.

Final Reclamation

Final reclamation will be performed for newly drilled unproductive wells and/or at the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by KMG. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring, final grading will be conducted over the entire

**NBU 922-36F4BS / 36F4CS/
36G4BS/ 36G4CS**

**Surface Use Plan of Operations
Page 8**

surface of the well site and access road. Where practical, the area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers and surface materials will be pitted with small depressions to form longitudinal depressions 12 to 18 inches deep perpendicular to the natural flow of water.

All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded.

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to UDOGM.

Seeding and Measures Common to Interim and Final Reclamation

Reclaimed areas may be fenced to exclude grazing and encourage re-vegetation.

On slopes where severe erosion can become a problem and the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. The slope will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to, erosion control blankets and bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage.

Seeding will occur year-round as conditions allow. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for re-vegetation. The site specific seed mix will be provided by SITLA.

J. Surface/Mineral Ownership:
SITLA
675 East 500 South, Suite 500
Salt Lake City, UT 84102

K. Other Information:
None

NBU 922-36F4BS / 36F4CS/
36G4BS/ 36G4CS

Surface Use Plan of Operations
Page 9

M. Lessee's or Operators' Representative & Certification:

Gina T. Becker
Regulatory Analyst II
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6086

Tommy Thompson
General Manager, Drilling
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6724


Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage for State lease activities is provided by State Surety Bond 22013542, and for applicable Federal lease activities and pursuant to 43 CFR 3104, by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.


Gina T. Becker

May 12, 2011
Date



JOE JOHNSON
LANDMAN

KERR-MCGEE ONSHORE OIL & GAS, L.P.
1099 18TH STREET, SUITE 1800
DENVER, CO 80202
720-929-6708 • FAX 720-929-7708
E-MAIL: JOE.JOHNSON@ANADARKO.COM

April 13, 2011

Ms. Diana Mason
Division of Oil, Gas and Mining
P.O. Box 145801
Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11
NBU 922-36G4CS
T9S-R22E
Section 36: SWNE/SWNE
Surface: 2434' FNL, 2447' FEL
Bottom Hole: 2566' FNL, 1818' FEL
Uintah County, Utah

Dear Ms. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to the Exception to Location and Siting of Wells.

- Kerr-McGee's NBU 922-36G4CS is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

Therefore, based on the above stated information Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

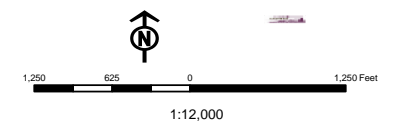
Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

A handwritten signature in blue ink, appearing to read 'Joe D. Johnson', with a horizontal line underneath.

Joseph D. Johnson
Landman

Units	Wells Query
STATUS	STATUS
	ACTIVE
	EXPLORATORY
	GAS STORAGE
	NF PP OIL
	NF SECONDARY
	PI OIL
	PP GAS
	PP GEOTHERMAL
	PP OIL
	SECONDARY
	TERMINATED
Fields	
STATUS	
	Unknown
	ABANDONED
	ACTIVE
	INACTIVE
	COMBINED
	STORAGE
	TERMINATED
	Sections
	Township



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office

P.O. Box 45155

Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:

3160

(UT-922)

May 20, 2011

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2011 Plan of Development Natural Buttes Unit
Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2011 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
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(Proposed PZ WASATCH-MESA VERDE)

NBU 922-36I PAD

43-047-51586	NBU 922-36H4BS	Sec 36 T09S R22E 2006 FSL 0799 FEL
	BHL	Sec 36 T09S R22E 2071 FNL 0494 FEL

43-047-51587	NBU 922-36H4CS	Sec 36 T09S R22E 2014 FSL 0792 FEL
	BHL	Sec 36 T09S R22E 2508 FNL 0495 FEL

43-047-51588	NBU 922-36I1CS	Sec 36 T09S R22E 2021 FSL 0785 FEL
	BHL	Sec 36 T09S R22E 2237 FSL 0494 FEL

43-047-51589	NBU 922-36I4CS	Sec 36 T09S R22E 1999 FSL 0805 FEL
	BHL	Sec 36 T09S R22E 1574 FSL 0493 FEL

NBU 922-36K PAD

43-047-51590	NBU 922-36K1BS	Sec 36 T09S R22E 1798 FSL 1998 FWL
	BHL	Sec 36 T09S R22E 2567 FSL 2148 FWL

43-047-51591	NBU 922-36K1CS	Sec 36 T09S R22E 1809 FSL 2015 FWL
	BHL	Sec 36 T09S R22E 2236 FSL 2147 FWL

43-047-51592	NBU 922-36K4BS	Sec 36 T09S R22E 1815 FSL 2023 FWL
	BHL	Sec 36 T09S R22E 1904 FSL 2147 FWL

43-047-51593	NBU 922-36K4CS	Sec 36 T09S R22E 1804 FSL 2006 FWL
	BHL	Sec 36 T09S R22E 1573 FSL 2146 FWL

43-047-51594	NBU 922-36L4CS	Sec 36 T09S R22E 1793 FSL 1990 FWL
	BHL	Sec 36 T09S R22E 1565 FSL 0821 FWL

RECEIVED: Jul. 26, 2011

API #	WELL NAME	LOCATION
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(Proposed PZ WASATCH-MESA VERDE)

NBU 922-36N PAD

43-047-51595	NBU 922-36M1CS	Sec 36 T09S R22E 1078 FSL 2379 FWL
	BHL	Sec 36 T09S R22E 0792 FSL 0816 FWL
43-047-51596	NBU 922-36M4CS	Sec 36 T09S R22E 1068 FSL 2379 FWL
	BHL	Sec 36 T09S R22E 0132 FSL 0819 FWL
43-047-51597	NBU 922-36N1BS	Sec 36 T09S R22E 1088 FSL 2379 FWL
	BHL	Sec 36 T09S R22E 1253 FSL 2140 FWL
43-047-51598	NBU 922-36N4CS	Sec 36 T09S R22E 1048 FSL 2379 FWL
	BHL	Sec 36 T09S R22E 0190 FSL 2081 FWL
43-047-51599	NBU 922-36O4CS	Sec 36 T09S R22E 1058 FSL 2379 FWL
	BHL	Sec 36 T09S R22E 0085 FSL 1814 FEL

NBU 922-36O PAD

43-047-51600	NBU 922-36J1CS	Sec 36 T09S R22E 1247 FSL 2113 FEL
	BHL	Sec 36 T09S R22E 2071 FSL 1809 FEL
43-047-51601	NBU 922-36J4BS	Sec 36 T09S R22E 1254 FSL 2094 FEL
	BHL	Sec 36 T09S R22E 1740 FSL 1816 FEL
43-047-51602	NBU 922-36J4CS	Sec 36 T09S R22E 1261 FSL 2075 FEL
	BHL	Sec 36 T09S R22E 1409 FSL 1816 FEL
43-047-51603	NBU 922-36O1BS	Sec 36 T09S R22E 1257 FSL 2085 FEL
	BHL	Sec 36 T09S R22E 1078 FSL 1815 FEL
43-047-51604	NBU 922-36O4BS	Sec 36 T09S R22E 1250 FSL 2103 FEL
	BHL	Sec 36 T09S R22E 0415 FSL 1814 FEL

NBU 922-36P PAD

43-047-51605	NBU 922-36P1BS	Sec 36 T09S R22E 1207 FSL 0606 FEL
	BHL	Sec 36 T09S R22E 1243 FSL 0493 FEL
43-047-51606	NBU 922-36P1CS	Sec 36 T09S R22E 1198 FSL 0611 FEL
	BHL	Sec 36 T09S R22E 0911 FSL 0493 FEL
43-047-51607	NBU 922-36P4BS	Sec 36 T09S R22E 1189 FSL 0616 FEL
	BHL	Sec 36 T09S R22E 0580 FSL 0493 FEL
43-047-51608	NBU 922-36P4CS	Sec 36 T09S R22E 1181 FSL 0621 FEL
	BHL	Sec 36 T09S R22E 0243 FSL 0492 FEL

NBU 922-36B PAD

43-047-51609	NBU 922-36A1CS	Sec 36 T09S R22E 0678 FNL 2273 FEL
	BHL	Sec 36 T09S R22E 0485 FNL 0494 FEL
43-047-51610	NBU 922-36B1CS	Sec 36 T09S R22E 0674 FNL 2282 FEL
	BHL	Sec 36 T09S R22E 0579 FNL 1821 FEL
43-047-51611	NBU 922-36B4BS	Sec 36 T09S R22E 0682 FNL 2264 FEL
	BHL	Sec 36 T09S R22E 0905 FNL 1828 FEL

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
43-047-51612	NBU 922-36G1BS	Sec 36 T09S R22E 0671 FNL 2291 FEL
	BHL	Sec 36 T09S R22E 1439 FNL 1861 FEL
NBU 922-36C PAD		
43-047-51613	NBU 922-36C1CS	Sec 36 T09S R22E 0700 FNL 1741 FWL
	BHL	Sec 36 T09S R22E 0485 FNL 2152 FWL
43-047-51614	NBU 922-36C4BS	Sec 36 T09S R22E 0706 FNL 1749 FWL
	BHL	Sec 36 T09S R22E 0746 FNL 2153 FWL
43-047-51615	NBU 922-36F1BS	Sec 36 T09S R22E 0718 FNL 1765 FWL
	BHL	Sec 36 T09S R22E 1407 FNL 2151 FWL
43-047-51616	NBU 922-36F1CS	Sec 36 T09S R22E 0712 FNL 1757 FWL
	BHL	Sec 36 T09S R22E 1738 FNL 2150 FWL
NBU 922-36D PAD		
43-047-51617	NBU 922-36D1CS	Sec 36 T09S R22E 1062 FNL 0981 FWL
	BHL	Sec 36 T09S R22E 0579 FNL 0825 FWL
43-047-51618	NBU 922-36D4BS	Sec 36 T09S R22E 1060 FNL 0971 FWL
	BHL	Sec 36 T09S R22E 0910 FNL 0825 FWL
43-047-51619	NBU 922-36D4CS	Sec 36 T09S R22E 1064 FNL 0990 FWL
	BHL	Sec 36 T09S R22E 1241 FNL 0825 FWL
43-047-51620	NBU 922-36E1BS	Sec 36 T09S R22E 1067 FNL 1000 FWL
	BHL	Sec 36 T09S R22E 1572 FNL 0825 FWL
NBU 922-36E PAD		
43-047-51621	NBU 922-36E1CS	Sec 36 T09S R22E 1682 FNL 0739 FWL
	BHL	Sec 36 T09S R22E 1903 FNL 0824 FWL
43-047-51622	NBU 922-36E4BS	Sec 36 T09S R22E 1684 FNL 0729 FWL
	BHL	Sec 36 T09S R22E 2245 FNL 0818 FWL
43-047-51623	NBU 922-36E4CS	Sec 36 T09S R22E 1686 FNL 0719 FWL
	BHL	Sec 36 T09S R22E 2565 FNL 0824 FWL
43-047-51624	NBU 922-36L1BS	Sec 36 T09S R22E 1688 FNL 0709 FWL
	BHL	Sec 36 T09S R22E 2401 FSL 0824 FWL
NBU 922-36G3 PAD		
43-047-51625	NBU 922-36F4BS	Sec 36 T09S R22E 2414 FNL 2443 FEL
	BHL	Sec 36 T09S R22E 2070 FNL 2149 FWL
43-047-51626	NBU 922-36F4CS	Sec 36 T09S R22E 2424 FNL 2445 FEL
	BHL	Sec 36 T09S R22E 2401 FNL 2149 FWL
43-047-51627	NBU 922-36G4BS	Sec 36 T09S R22E 2405 FNL 2441 FEL
	BHL	Sec 36 T09S R22E 2235 FNL 1818 FEL
43-047-51628	NBU 922-36G4CS	Sec 36 T09S R22E 2434 FNL 2447 FEL
	BHL	Sec 36 T09S R22E 2566 FNL 1818 FEL

This office has no objection to permitting the wells at this time.

Michael L. Coulthard

Digitally signed by Michael L. Coulthard
DN: cn=Michael L. Coulthard, o=Bureau of Land
Management, ou=Branch of Minerals,
email=Michael_Coulthard@blm.gov, c=US
Date: 2011.05.23 07:16:05 -06'00'

bcc: File - Natural Buttes Unit
Division of Oil Gas and Mining
Central Files
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:5-20-11

RECEIVED: Jul. 26, 2011

From: Jim Davis
To: Bonner, Ed; Garrison, LaVonne; Hill, Brad; Mason, Diana
CC: Gina Becker; Lytle, Andy
Date: 6/8/2011 3:00 PM
Subject: Kerr McGee APD approvals.

The following APDs have been approved by SITLA including arch and paleo clearance.

4304751586 NBU 922-36H4BS
4304751587 NBU 922-36H4CS
4304751588 NBU 922-36I1CS
4304751589 NBU 922-36I4CS
4304751590 NBU 922-36K1BS
4304751591 NBU 922-36K1CS
4304751592 NBU 922-36K4BS
4304751593 NBU 922-36K4CS
4304751594 NBU 922-36L4CS
4304751595 NBU 922-36M1CS
4304751596 NBU 922-36M4CS
4304751597 NBU 922-36N1BS
4304751598 NBU 922-36N4CS
4304751599 NBU 922-36O4CS
4304751600 NBU 922-36J1CS
4304751601 NBU 922-36J4BS
4304751602 NBU 922-36J4CS
4304751603 NBU 922-36O1BS
4304751604 NBU 922-36O4BS
4304751605 NBU 922-36P1BS
4304751606 NBU 922-36P1CS
4304751607 NBU 922-36P4BS
4304751608 NBU 922-36P4CS
4304751613 NBU 922-36C1CS
4304751614 NBU 922-36C4BS
4304751615 NBU 922-36F1BS
4304751616 NBU 922-36F1CS
4304751617 NBU 922-36D1CS
4304751618 NBU 922-36D4BS
4304751619 NBU 922-36D4CS
4304751620 NBU 922-36E1BS
4304751621 NBU 922-36E1CS
4304751622 NBU 922-36E4BS
4304751623 NBU 922-36E4CS
4304751624 NBU 922-36L1BS
4304751625 NBU 922-36F4BS
4304751626 NBU 922-36F4CS
4304751627 NBU 922-36G4BS
4304751628 NBU 922-36G4CS

Full paleo monitoring is a required condition for the approval of these APDs- as recommended in the paleo report.

4304751609 NBU 922-36A1CS
4304751610 NBU 922-36B1CS
4304751611 NBU 922-36B4BS
4304751612 NBU 922-36G1BS

Thanks.
-Jim

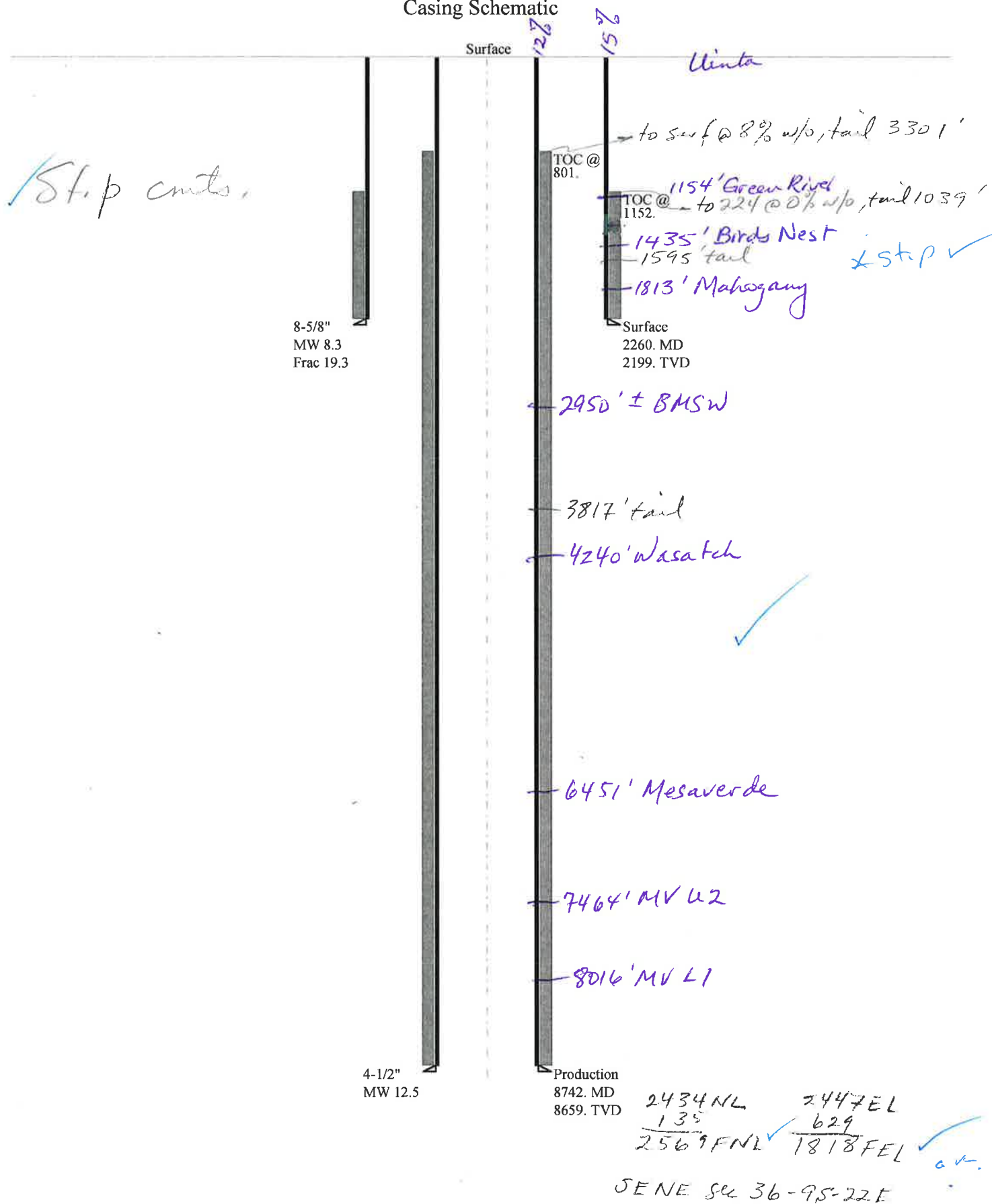
API Well Number: 43047516280000

Jim Davis
Utah Trust Lands Administration
jimdavis1@utah.gov
Phone: (801) 538-5156

RECEIVED: Jul. 26, 2011

43047516280000 NBU 922-36G4CS

Casing Schematic



Well name:	43047516280000 NBU 922-36G4CS	
Operator:	KERR-MCGEE OIL & GAS ONSHORE, L.P.	
String type:	Surface	Project ID: 43-047-51628
Location:	UINTAH COUNTY	

Design parameters:**Collapse**

Mud weight: 8.330 ppg
Design is based on evacuated pipe.

Minimum design factors:**Collapse:**

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 105 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft

Cement top: 1,152 ft

Burst

Max anticipated surface pressure: 1,989 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 2,253 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J)
8 Round LTC: 1.70 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Tension is based on air weight.
Neutral point: 1,978 ft

Directional Info - Build & Drop

Kick-off point 300 ft
Departure at shoe: 450 ft
Maximum dogleg: 2 °/100ft
Inclination at shoe: 17 °

Re subsequent strings:

Next setting depth: 8,742 ft
Next mud weight: 12.500 ppg
Next setting BHP: 5,677 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 2,260 ft
Injection pressure: 2,260 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	2260	8.625	28.00	I-55	LT&C	2199	2260	7.892	89496

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	952	1880	1.976	2253	3390	1.50	61.6	348	5.65 J

Prepared by: Helen Sadik-Macdonald
Div of Oil, Gas & Mining

Phone: 801 538-5357
FAX: 801-359-3940

Date: July 12, 2011
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2199 ft, a mud weight of 8.33 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Engineering responsibility for use of this design will be that of the purchaser.

RECEIVED: Jul. 26, 2011

Well name:	43047516280000 NBU 922-36G4CS	
Operator:	KERR-MCGEE OIL & GAS ONSHORE, L.P.	
String type:	Production	Project ID: 43-047-51628
Location:	UINTAH COUNTY	

Design parameters:**Collapse**

Mud weight: 12.500 ppg
Design is based on evacuated pipe.

Minimum design factors:**Collapse:**

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 195 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft

Cement top: 801 ft

Burst

Max anticipated surface pressure: 3,718 psi
Internal gradient: 0.220 psi/ft
Calculated BHP 5,623 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.60 (B)

Tension is based on air weight.
Neutral point: 7,124 ft

Directional Info - Build & Drop

Kick-off point 300 ft
Departure at shoe: 644 ft
Maximum dogleg: 2 °/100ft
Inclination at shoe: 0 °

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	8742	4.5	11.60	I-80	LT&C	8659	8742	3.875	115394
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	5623	6360	1.131	5623	7780	1.38	100.4	212	2.11 J

Prepared by: Helen Sadik-Macdonald
Div of Oil, Gas & Mining

Phone: 801 538-5357
FAX: 801-359-3940

Date: July 12, 2011
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 8659 ft, a mud weight of 12.5 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Engineering responsibility for use of this design will be that of the purchaser.

RECEIVED: Jul. 26, 2011

ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator	KERR-MCGEE OIL & GAS ONSHORE, L.P.				
Well Name	NBU 922-36G4CS				
API Number	43047516280000	APD No	3802	Field/Unit	NATURAL BUTTES
Location: 1/4,1/4	SWNE	Sec	36	Tw	9.0S
		Rng	22.0E	2434	FNL 2447 FEL
GPS Coord (UTM)	637636	4428031	Surface Owner		

Participants

Floyd Bartlett (DOGM), Sheila Wopsock, Lovell Young, Gina Becker, Mark Koehn, Griz Oleen (Kerr McGee), Ben Williams (UDWR) and Mitch Batty, John Slaugh (Timberline Engineering and Land Surveying).

Regional/Local Setting & Topography

The general area is in the southeast portion of the Natural Buttes Unit, which contains the White River and rugged drainages that drain into the White River. Topography is varied and frequently dissected by short draws or washes, which become overly steep as they approach the White River breaks or rim. Distance to the White River varies from $\frac{3}{4}$ mile to 2 miles. The side drainages are dry except for ephemeral flows. No seeps or springs exist in the area. An occasional pond has been constructed to supply water for livestock and antelope. Vernal, Utah is approximately 42 air miles to the northwest. Access from Vernal is approximately 45.6 road miles following Utah State, Uintah County and oilfield development roads to the location.

Four additional gas wells will be added to and directionally drilled from the NBU 922-36G3 pad. They are the NBU 922-36G4BS, NBU 922-36F4BS, NBU 922-36F4CS and NBU 922-36G4CS. The pad contains the existing NBU 932-36G producing gas well. The existing pad will be significantly enlarged in all directions. The site is in rough terrain. Numerous draws and steep rocky hills occur. Moderate excavation will be required to enlarge the pad. The site is on the point or end of a ridge which has been leveled for the existing pad. The reserve pit will be expanded to the west with the spoils located in a moderately wide swale or valley. The spoils will be recoverable. A drainage to the east will be filled and a diversion constructed off the pad on the north and east side. Cut for the reserve pit at corner C is 26.7 feet. Where the pad is cut into the steep side slopes, the cut slope may be left at about $\frac{1}{4}$:1 to reduce the amount of cutting and disturbance. The south end of the pit is in 3.1 feet of fill. With the proposed 15 foot outer bench, 2 feet of freeboard, a 30-mil liner and the spoils placed along this side, it should be stable. The existing pad shows no stability problems. Although heavy excavation is required for enlarging the pad, no stability concerns exist. The selected site is the only suitable location in the immediate area.

Both the surface and minerals are owned by SITLA.

Surface Use Plan

Current Surface Use

Grazing
Wildlife Habitat
Existing Well Pad

New Road Miles	Well Pad	Src Const Material	Surface Formation
0	Width 353 Length 455	Onsite	UNTA

Ancillary Facilities N

Waste Management Plan Adequate?

Environmental Parameters

Affected Floodplains and/or Wetlands N**Flora / Fauna**

Area beyond the existing pad is poorly vegetated with greasewood, cheatgrass, black sagebrush, broom snakeweed, globemallow, Sitanion hystrix, shadscale, rabbitbrush, loco weed, pepper weed, halogeton and annuals.

Sheep, deer, antelope, coyote, and other small mammals and birds.

Soil Type and Characteristics

Rocky sandy loam.

Erosion Issues Y

A drainage to the east will be filled and a diversion constructed off the pad on the north and east side.

Sedimentation Issues N**Site Stability Issues N****Drainage Diversion Required? Y**

A drainage to the east will be filled and a diversion constructed off the pad on the north and east side.

Berm Required? N**Erosion Sedimentation Control Required? Y**

A drainage to the east will be filled and a diversion constructed off the pad on the north and east side.

Paleo Survey Run? Y Paleo Potential Observed? N Cultural Survey Run? Y Cultural Resources? N

Reserve Pit**Site-Specific Factors****Site Ranking**

Distance to Groundwater (feet)	100 to 200	5
Distance to Surface Water (feet)	>1000	0
Dist. Nearest Municipal Well (ft)	>5280	0
Distance to Other Wells (feet)		20
Native Soil Type	Mod permeability	10
Fluid Type	Fresh Water	5
Drill Cuttings	Normal Rock	0
Annual Precipitation (inches)		0
Affected Populations		
Presence Nearby Utility Conduits	Not Present	0
Final Score		40

1 Sensitivity Level

Characteristics / Requirements

The reserve pit is planned mostly in an area of cut in the southwest side of the location. Dimensions are 120' x 260' x 12' deep with 2' of freeboard. The south end of the pit is in 3.1 feet of fill. With the proposed 15 foot outer bench, 2 feet of freeboard, a 30-mil liner and the spoils placed along this side, it should be stable.

Closed Loop Mud Required? N Liner Required? Y Liner Thickness 30 Pit Underlayment Required? Y

Other Observations / Comments

Floyd Bartlett
Evaluator

5/24/2011
Date / Time

Application for Permit to Drill

Statement of Basis

7/26/2011

Utah Division of Oil, Gas and Mining

Page 1

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
3802	43047516280000	LOCKED	GW	S	No
Operator	KERR-MCGEE OIL & GAS ONSHORE, L.P.		Surface Owner-APD		
Well Name	NBU 922-36G4CS		Unit	NATURAL BUTTES	
Field	NATURAL BUTTES		Type of Work	DRILL	
Location	SWNE 36 9S 22E S 2434 FNL 2447 FEL GPS Coord (UTM)			637700E	4428031N

Geologic Statement of Basis

Kerr McGee proposes to set 2,260' of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 2,950'. A search of Division of Water Rights records shows no water wells within a 10,000 foot radius of the proposed location. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. The production casing cement should be brought up above the base of the moderately saline ground water in order to isolate it from fresher waters up hole. The proposed casing and cement should adequately protect any usable ground water.

 Brad Hill
 APD Evaluator

 6/21/2011
 Date / Time

Surface Statement of Basis

The general area is in the southeast portion of the Natural Buttes Unit, which contains the White River and rugged drainages that drain into the White River. Topography is varied and frequently dissected by short draws or washes, which become overly steep as they approach the White River breaks or rim. Distance to the White River varies from ¾ mile to 2 miles. The side drainages are dry except for ephemeral flows. No seeps or springs exist in the area. An occasional pond has been constructed to supply water for livestock and antelope. Vernal, Utah is approximately 42 air miles to the northwest. Access from Vernal is approximately 45.6 road miles following Utah State, Uintah County and oilfield development roads to the location.

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Both the surface and minerals are owned by SITLA. Ed Bonner and Jim Davis of SITLA were invited to attend the pre-site evaluation. Neither attended. SITLA is to be contacted for reclamation standards including a seed mix to be used.

Ben Williams of the Utah Division of Wildlife Resources attended the pre-site. Mr. Williams stated no wildlife

Application for Permit to Drill Statement of Basis

7/26/2011

Utah Division of Oil, Gas and MiningPage 2

values would be significantly affected by drilling and operating the additional wells at this location.

Floyd Bartlett
Onsite Evaluator

5/24/2011
Date / Time

Conditions of Approval / Application for Permit to Drill

Category	Condition
Pits	A synthetic liner with a minimum thickness of 30 mils with a double felt subliner shall be properly installed and maintained in the reserve pit.
Surface	Drainages adjacent to the proposed pad shall be diverted around the location.
Surface	The reserve pit shall be fenced upon completion of drilling operations.

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 5/13/2011**API NO. ASSIGNED:** 43047516280000**WELL NAME:** NBU 922-36G4CS**OPERATOR:** KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995)**PHONE NUMBER:** 720 929-6086**CONTACT:** Gina Becker**PROPOSED LOCATION:** SWNE 36 090S 220E**Permit Tech Review:** ☒**SURFACE:** 2434 FNL 2447 FEL**Engineering Review:** ☒**BOTTOM:** 2566 FNL 1818 FEL**Geology Review:** ☒**COUNTY:** UINTAH**LATITUDE:** 39.99314**LONGITUDE:** -109.38706**UTM SURF EASTINGS:** 637700.00**NORTHINGS:** 4428031.00**FIELD NAME:** NATURAL BUTTES**LEASE TYPE:** 3 - State**LEASE NUMBER:** ML-22650**PROPOSED PRODUCING FORMATION(S):** WASATCH-MESA VERDE**SURFACE OWNER:** 3 - State**COALBED METHANE:** NO**RECEIVED AND/OR REVIEWED:**☒ **PLAT**☒ **Bond:** STATE - 22013542☐ **Potash**☒ **Oil Shale 190-5**☐ **Oil Shale 190-3**☐ **Oil Shale 190-13**☒ **Water Permit:** Permit #43-8496☐ **RDCC Review:**☐ **Fee Surface Agreement**☒ **Intent to Commingle****Commingle Approved****LOCATION AND SITING:**☐ **R649-2-3.****Unit:** NATURAL BUTTES☐ **R649-3-2. General**☐ **R649-3-3. Exception**☒ **Drilling Unit****Board Cause No:** Cause 173-14**Effective Date:** 12/2/1999**Siting:** Suspends General Siting☒ **R649-3-11. Directional Drill****Comments:** Presite Completed

Stipulations: 3 - Commingle - ddoucet
5 - Statement of Basis - bhill
15 - Directional - dmason
17 - Oil Shale 190-5(b) - dmason
25 - Surface Casing - hmadonald

RECEIVED: Jul. 26, 2011



GARY R. HERBERT
Governor

GREGORY S. BELL
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: NBU 922-36G4CS
API Well Number: 43047516280000
Lease Number: ML-22650
Surface Owner: STATE
Approval Date: 7/26/2011

Issued to:

KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:

Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingling:

In accordance with Board Cause No. 173-14, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Surface casing shall be cemented to the surface.

Additional Approvals:

The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this well:

- Any changes to the approved drilling plan – contact Dustin Doucet
- Significant plug back of the well – contact Dustin Doucet
- Plug and abandonment of the well – contact Dustin Doucet

Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well – contact Carol Daniels
OR
submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at <http://oilgas.ogm.utah.gov>
- 24 hours prior to testing blowout prevention equipment - contact Dan Jarvis
- 24 hours prior to cementing or testing casing – contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program – contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well – contact Dan Jarvis

Contact Information:

The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):

- Carol Daniels 801-538-5284 - office
- Dustin Doucet 801-538-5281 - office
801-733-0983 - after office hours
- Dan Jarvis 801-538-5338 - office
801-231-8956 - after office hours

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) – due within 5 days of spudding the well
- Monthly Status Report (Form 9) – due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) – due prior to implementation
- Written Notice of Emergency Changes (Form 9) – due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) – due prior to implementation
- Report of Water Encountered (Form 7) – due within 30 days after completion
- Well Completion Report (Form 8) – due within 30 days after completion or plugging

Approved By:



For John Rogers
Associate Director, Oil & Gas

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: ML-22650
1. TYPE OF WELL Gas Well		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		8. WELL NAME and NUMBER: NBU 922-36G4CS
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2434 FNL 2447 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNE Section: 36 Township: 09.0S Range: 22.0E Meridian: S		9. API NUMBER: 43047516280000
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		9. FIELD and POOL or WILDCAT: NATURAL BUTTES
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> ALTER CASING	
<input checked="" type="checkbox"/> SPUD REPORT Date of Spud: 10/31/2011	<input type="checkbox"/> CASING REPAIR	
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	
	<input type="checkbox"/> CHANGE TUBING	
	<input type="checkbox"/> CHANGE WELL STATUS	
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	
	<input type="checkbox"/> DEEPEN	
	<input type="checkbox"/> FRACTURE TREAT	
	<input type="checkbox"/> OPERATOR CHANGE	
	<input type="checkbox"/> PLUG AND ABANDON	
	<input type="checkbox"/> PRODUCTION START OR RESUME	
	<input type="checkbox"/> RECLAMATION OF WELL SITE	
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	
	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	
	<input type="checkbox"/> TUBING REPAIR	
	<input type="checkbox"/> VENT OR FLARE	
	<input type="checkbox"/> WATER SHUTOFF	
	<input type="checkbox"/> SI TA STATUS EXTENSION	
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	
	<input type="checkbox"/> OTHER: <input style="width: 100px;" type="text"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. MIRU PETE MARTIN BUCKET RIG. DRILLED 20" CONDUCTOR HOLE TO 40'. RAN 14" 36.7# SCHEDULE 10 PIPE. CMT W/28 SX READY MIX. SPUD WELL ON 10/31/2011 AT 1000 HRS.		
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY		
NAME (PLEASE PRINT) Sheila Wopsock	PHONE NUMBER 435 781-7024	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 11/2/2011	

BLM - Vernal Field Office - Notification Form

Operator KERR-McGEE OIL & GAS Rig Name/# BUCKET RIG
Submitted By SHEILA WOPSOCI Phone Number 435.781.7024
Well Name/Number NBU 922-36G4CS
Qtr/Qtr SW/NE Section 36 Township 9S Range 22E
Lease Serial Number ML-22650
API Number 4304751628

Spud Notice – Spud is the initial spudding of the well, not drilling out below a casing string.

Date/Time 10/31/2011 0800 HRS AM ☒ PM ☐

Casing – Please report time casing run starts, not cementing times.

- ☒ Surface Casing
☐ Intermediate Casing
☐ Production Casing
☐ Liner
☐ Other

RECEIVED

OCT 28 2011

DIV. OF OIL, GAS & MINING

Date/Time 11/12/2011 0800 HRS AM ☒ PM ☐

BOPE

- ☐ Initial BOPE test at surface casing point
☐ BOPE test at intermediate casing point
☐ 30 day BOPE test
☐ Other

Date/Time _____ AM ☐ PM ☐

Remarks ESTIMATED DATE AND TIME. PLEASE CONTACT
LOVEL YOUNG AT 435.781.7051 FOR MORE

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: ML-22650
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PHONE NUMBER: 720 929-6515 Ext		9. FIELD and POOL or WILDCAT: NATURAL BUTTES
COUNTY: UINTAH		STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 10/20/2011 <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"> <input type="checkbox"/> ACIDIZE <input checked="" type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION </div> <div style="width: 33%;"> <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER </div> <div style="width: 33%;"> <input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/> </div> </div>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. The Operator requests approval for changes in the drilling plan. Specifically, the Operator requests approval for a FIT waiver, closed loop drilling options, and a production casing change. The production casing change includes a switch from 4-1/2" I-80 11.6 LB BTC/LTC casing to 4-1/2" I-80 11.6 LB Ultra DQX/LTC casing. All other aspects of the previously approved drilling plan will not change. These proposals do not deviate from previously submitted and approved plans. Please see attachments. Thank you.		
<div style="display: flex; align-items: center;"> <div style="text-align: center;"> <p style="color: red; font-weight: bold;">Approved by the Utah Division of Oil, Gas and Mining</p> <p style="color: red; font-weight: bold;">Date: 11/10/2011</p> <p style="color: red; font-weight: bold;">By: <u><i>Derek Duff</i></u></p> </div> </div>		
NAME (PLEASE PRINT) Andy Lytle		PHONE NUMBER 720 929-6100
SIGNATURE N/A		TITLE Regulatory Analyst
DATE 10/19/2011		

Requested Drilling Changes:**Closed Loop**

Kerr-McGee will use either a closed loop drilling system that will require one pit and one cuttings storage area to be constructed on the drilling pad or a traditional drilling operation with one pit used for drilling and completion operations. The cuttings storage area will be used to contain only the de-watered drill cuttings and will be lined and bermed to prevent any liquid runoff. The drill cuttings will be buried in the completion pit once completion operations are completed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit will be lined with a synthetic material 20 mil or thicker and will be used for the completing of the wells on the pad or used as part of our Aandarko Completions Transportation System (ACTS). Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completions pit.

If Kerr-McGee does not use a closed loop drilling system, it will construct a traditional drilling/completions pit to contain drill cuttings and for use in completion operations. The pit will be lined with a synthetic material 20 mil or thicker. The drill cuttings will be buried in the pit using traditional pit closure standards.

Variance for FIT Requirements

Kerr-McGee requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

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1. TYPE OF WELL Gas Well		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		8. WELL NAME and NUMBER: NBU 922-36G4CS
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2434 FNL 2447 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNE Section: 36 Township: 09.0S Range: 22.0E Meridian: S		9. API NUMBER: 43047516280000
PHONE NUMBER: 720 929-6515 Ext		9. FIELD and POOL or WILDCAT: NATURAL BUTTES
COUNTY: UINTAH		STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 10/20/2011 <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input type="checkbox"/> ACIDIZE</div> <div style="width: 33%;"><input type="checkbox"/> ALTER CASING</div> <div style="width: 33%;"><input type="checkbox"/> CASING REPAIR</div> <div style="width: 33%;"><input checked="" type="checkbox"/> CHANGE TO PREVIOUS PLANS</div> <div style="width: 33%;"><input type="checkbox"/> CHANGE TUBING</div> <div style="width: 33%;"><input type="checkbox"/> CHANGE WELL NAME</div> <div style="width: 33%;"><input type="checkbox"/> CHANGE WELL STATUS</div> <div style="width: 33%;"><input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS</div> <div style="width: 33%;"><input type="checkbox"/> CONVERT WELL TYPE</div> <div style="width: 33%;"><input type="checkbox"/> DEEPEN</div> <div style="width: 33%;"><input type="checkbox"/> FRACTURE TREAT</div> <div style="width: 33%;"><input type="checkbox"/> NEW CONSTRUCTION</div> <div style="width: 33%;"><input type="checkbox"/> OPERATOR CHANGE</div> <div style="width: 33%;"><input type="checkbox"/> PLUG AND ABANDON</div> <div style="width: 33%;"><input type="checkbox"/> PLUG BACK</div> <div style="width: 33%;"><input type="checkbox"/> PRODUCTION START OR RESUME</div> <div style="width: 33%;"><input type="checkbox"/> RECLAMATION OF WELL SITE</div> <div style="width: 33%;"><input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION</div> <div style="width: 33%;"><input type="checkbox"/> REPERFORATE CURRENT FORMATION</div> <div style="width: 33%;"><input type="checkbox"/> SIDETRACK TO REPAIR WELL</div> <div style="width: 33%;"><input type="checkbox"/> TEMPORARY ABANDON</div> <div style="width: 33%;"><input type="checkbox"/> TUBING REPAIR</div> <div style="width: 33%;"><input type="checkbox"/> VENT OR FLARE</div> <div style="width: 33%;"><input type="checkbox"/> WATER DISPOSAL</div> <div style="width: 33%;"><input type="checkbox"/> WATER SHUTOFF</div> <div style="width: 33%;"><input type="checkbox"/> SI TA STATUS EXTENSION</div> <div style="width: 33%;"><input type="checkbox"/> APD EXTENSION</div> <div style="width: 33%;"><input type="checkbox"/> WILDCAT WELL DETERMINATION</div> <div style="width: 33%;"><input type="checkbox"/> OTHER</div> </div>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. The Operator requests approval for changes in the drilling plan. Specifically, the Operator requests approval for a FIT waiver, closed loop drilling options, and a production casing change. The production casing change includes a switch from 4-1/2" I-80 11.6 LB BTC/LTC casing to 4-1/2" I-80 11.6 LB Ultra DQX/LTC casing. All other aspects of the previously approved drilling plan will not change. These proposals do not deviate from previously submitted and approved plans. Please see attachments. Thank you.		
NAME (PLEASE PRINT) Andy Lytle		PHONE NUMBER 720 929-6100
SIGNATURE N/A		TITLE Regulatory Analyst
DATE 10/19/2011		APPROVED BY THE UTAH DIVISION OF OIL, GAS AND MINING Date: <u>11/10/2011</u> By: <u><i>Derek Duff</i></u>

Requested Drilling Changes:**Closed Loop**

Kerr-McGee will use either a closed loop drilling system that will require one pit and one cuttings storage area to be constructed on the drilling pad or a traditional drilling operation with one pit used for drilling and completion operations. The cuttings storage area will be used to contain only the de-watered drill cuttings and will be lined and bermed to prevent any liquid runoff. The drill cuttings will be buried in the completion pit once completion operations are completed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit will be lined with a synthetic material 20 mil or thicker and will be used for the completing of the wells on the pad or used as part of our Aandarko Completions Transportation System (ACTS). Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completions pit.

If Kerr-McGee does not use a closed loop drilling system, it will construct a traditional drilling/completions pit to contain drill cuttings and for use in completion operations. The pit will be lined with a synthetic material 20 mil or thicker. The drill cuttings will be buried in the pit using traditional pit closure standards.

Variance for FIT Requirements

Kerr-McGee requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: ML-22650
1. TYPE OF WELL Gas Well		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		8. WELL NAME and NUMBER: NBU 922-36G4CS
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2434 FNL 2447 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNE Section: 36 Township: 09.0S Range: 22.0E Meridian: S		9. API NUMBER: 43047516280000
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		9. FIELD and POOL or WILDCAT: NATURAL BUTTES
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start: <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input checked="" type="checkbox"/> DRILLING REPORT Report Date: 11/11/2011	<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"> <input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION </div> <div style="width: 33%;"> <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER </div> <div style="width: 33%;"> <input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/> </div> </div>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. MIRU AIR RIG ON NOV. 9, 2011. DRILLED SURFACE HOLE TO 2465'. RAN SURFACE CASING AND CEMENTED. WELL IS WAITING ON ROTARY RIG. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH WELL COMPLETION REPORT.		
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY		
NAME (PLEASE PRINT) Jaime Scharnowske		PHONE NUMBER 720 929-6304
SIGNATURE N/A		TITLE Regulatory Analyst
DATE 11/14/2011		

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 6

ENTITY ACTION FORM

Operator: KERR McGEE OIL & GAS ONSHORE LP Operator Account Number: N 2995
Address: 1368 SOUTH 1200 EAST
city VERNAL
state UT zip 84078 Phone Number: (435) 781-7024

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304751628	NBU 922-36G4CS		SWNE	36	9S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
<u>B</u>	99999	<u>2900</u>	10/31/2011		<u>11/9/11</u>		
Comments: MIRU PETE MARTIN BUCKET RIG. <u>WSMVD</u> SPUD WELL ON 10/31/2011 AT 1000 HRS. <u>BHL = SWNE</u>							

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304751626	NBU 922-36F4CS		SWNE	36	9S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
<u>B</u>	99999	<u>2900</u>	10/31/2011		<u>11/9/11</u>		
Comments: MIRU PETE MARTIN BUCKET RIG. <u>WSMVD</u> SPUD WELL ON 10/31/2011 AT 1530 HRS. <u>BHL = SENW</u>							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304751625	NBU 922-36F4BS		SWNE	36	9S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
<u>B</u>	99999	<u>2900</u>	11/1/2011		<u>11/9/11</u>		
Comments: MIRU PETE MARTIN BUCKET RIG. <u>WSMVD</u> SPUD WELL ON 11/01/2011 AT 0700 HRS. <u>BHL = SENW</u>							

ACTION CODES:

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

SHEILA WOPSOCK

Name (Please Print)

Signature

REGULATORY ANALYST

Title

11/1/2011

Date

(5/2000)

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NOV 02 2011

DIV. OF OIL, GAS & MINING

BLM - Vernal Field Office - Notification Form

Operator ANADARKO Rig Name/# ENSIGN 139
Submitted By SID ARMSTRONG Phone Number 435- 828-0984
Well Name/Number NBU 922 - 36G4CS
Qtr/Qtr SW/NE Section 36 Township 9S Range 22E
Lease Serial Number ML-22650
API Number 43047516280000

Spud Notice – Spud is the initial spudding of the well, not drilling out below a casing string.

Date/Time _____ AM ☐ PM ☐

Casing – Please report time casing run starts, not cementing times.

- ☐ Surface Casing
- ☐ Intermediate Casing
- ☐ Production Casing
- ☐ Liner
- ☐ Other

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DEC 09 2011

DIV. OF OIL, GAS & MINING

Date/Time _____ AM ☐ PM ☐

BOPE

- ☒ Initial BOPE test at surface casing point
- ☐ BOPE test at intermediate casing point
- ☐ 30 day BOPE test
- ☐ Other

Date/Time 12/12/2011 11:30 AM ☒ PM ☐

Remarks WILL BE MOVING TO NBU 922 - 36G4CS & TESTING
B.O.P'S

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: ML-22650
1. TYPE OF WELL Gas Well		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		8. WELL NAME and NUMBER: NBU 922-36G4CS
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2434 FNL 2447 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNE Section: 36 Township: 09.0S Range: 22.0E Meridian: S		9. API NUMBER: 43047516280000
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		9. FIELD and POOL or WILDCAT: NATURAL BUTTES
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start: <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input checked="" type="checkbox"/> DRILLING REPORT Report Date: 12/19/2011	<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"> <input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION </div> <div style="width: 33%;"> <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER </div> <div style="width: 33%;"> <input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/> </div> </div>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. MIRU ROTARY RIG. FINISHED DRILLING FROM 2465' TO 8735' ON DEC. 16, 2011. RAN 4-1/2" 11.6# I-80 PRODUCTION CASING. CEMENTED PRODUCTION CASING. RELEASED ENSIGN RIG 139 ON DEC. 19, 2011 @ 03:00 HRS. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH THE WELL COMPLETION REPORT. WELL IS WAITING ON FINAL COMPLETION ACTIVITIES.		
NAME (PLEASE PRINT) Jaime Scharnowske		PHONE NUMBER 720 929-6304
SIGNATURE N/A		TITLE Regulatory Analyst
DATE 12/19/2011		

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: ML-22650
1. TYPE OF WELL Gas Well		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		8. WELL NAME and NUMBER: NBU 922-36G4CS
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2434 FNL 2447 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNE Section: 36 Township: 09.0S Range: 22.0E Meridian: S		9. API NUMBER: 43047516280000
PHONE NUMBER: 720 929-6514		9. FIELD and POOL or WILDCAT: NATURAL BUTTES
COUNTY: UINTAH		STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> ALTER CASING	
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CASING REPAIR	
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 2/10/2012	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	
	<input type="checkbox"/> CHANGE WELL STATUS	
	<input type="checkbox"/> CHANGE WELL NAME	
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	
	<input type="checkbox"/> CONVERT WELL TYPE	
	<input type="checkbox"/> DEEPEN	
	<input type="checkbox"/> FRACTURE TREAT	
	<input type="checkbox"/> NEW CONSTRUCTION	
	<input type="checkbox"/> OPERATOR CHANGE	
	<input type="checkbox"/> PLUG AND ABANDON	
	<input type="checkbox"/> PLUG BACK	
	<input checked="" type="checkbox"/> PRODUCTION START OR RESUME	
	<input type="checkbox"/> RECLAMATION OF WELL SITE	
	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION	
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	
	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	
	<input type="checkbox"/> TEMPORARY ABANDON	
	<input type="checkbox"/> TUBING REPAIR	
	<input type="checkbox"/> VENT OR FLARE	
	<input type="checkbox"/> WATER DISPOSAL	
	<input type="checkbox"/> WATER SHUTOFF	
	<input type="checkbox"/> SI TA STATUS EXTENSION	
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	
	<input type="checkbox"/> OTHER: <input style="width: 100px;" type="text"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. THE SUBJECT WELL WAS PLACED ON PRODUCTION ON 02/10/2012 AT 1630 HRS. THE CHRONOLOGICAL WELL HISTORY WILL BE SUBMITTED WITH THE WELL COMPLETION REPORT.		
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY February 15, 2012		
NAME (PLEASE PRINT) Sheila Wopsock	PHONE NUMBER 435 781-7024	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 2/13/2012	

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

AMENDED REPORT ☐ FORM 8
(highlight changes)

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. TYPE OF WELL:		OIL WELL <input type="checkbox"/>	GAS WELL <input checked="" type="checkbox"/>	DRY <input type="checkbox"/>	OTHER <input type="checkbox"/>		
b. TYPE OF WORK:		NEW WELL <input checked="" type="checkbox"/>	HORIZ. LATS. <input type="checkbox"/>	DEEP-EN <input type="checkbox"/>	RE-ENTRY <input type="checkbox"/>	DIFF. RESVR. <input type="checkbox"/>	OTHER <input type="checkbox"/>
2. NAME OF OPERATOR: KERR MCGEE OIL & GAS ONSHORE, L.P.						5. LEASE DESIGNATION AND SERIAL NUMBER: ML-22650	
3. ADDRESS OF OPERATOR: P.O. BOX 173779 CITY DENVER STATE CO ZIP 80217						7. UNIT or CA AGREEMENT NAME UTU63047A	
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: SWNE 2434 FNL 2447 FEL S36,T9S,R22E AT TOP PRODUCING INTERVAL REPORTED BELOW: SWNE 2546 FNL 1823 FEL S36,T9S,R22E AT TOTAL DEPTH: SWNE 2567 FNL 1804 FEL S36,T9S,R22E						8. WELL NAME and NUMBER: NBU 922-36G4CS	
14. DATE SPURRED: 10/31/2011						9. API NUMBER: 4304751628	
15. DATE T.D. REACHED: 12/16/2011						10. FIELD AND POOL, OR WILDCAT NATURAL BUTTES	
16. DATE COMPLETED: 2/10/2012						11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SWNE 36 9S 22E S	
17. ELEVATIONS (DF, RKB, RT, GL): 4958 GL						12. COUNTY UINTAH	
18. TOTAL DEPTH: MD 8,735 TVD 8,660						13. STATE UTAH	
19. PLUG BACK T.D.: MD 8,665 TVD 8,590						20. IF MULTIPLE COMPLETIONS, HOW MANY? *	
21. DEPTH BRIDGE MD PLUG SET: TVD						22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each) BHV-SD/DSN/ACTR-SYNTHETIC COMBO-RSL/SM-CBL/GR/COLLARS/TEMP	
23. WAS WELL CORED? NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> (Submit analysis) WAS DST RUN? NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> (Submit report) DIRECTIONAL SURVEY? NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> (Submit copy)							

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
20"	14" STL	36.7#	0	40		28			
11"	8 5/8" IJ-55	28#	0	2,445		900		0	
7 7/8"	4 1/2" I-80	11.6#	0	8,709		1,550		200	

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 3/8"	8,107							

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
(A) MESAVERDE	6,814	8,586			6,814 8,586	0.36	168	Open <input checked="" type="checkbox"/> Squeezed <input type="checkbox"/>
(B) WSMVD								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
(C)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
(D)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>

27. PERFORATION RECORD

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
6814-8586	PUMP 11,639 BBLs SLICK H2O & 234,566 # 30/50 OTTAWA SAND
	7 STAGES

29. ENCLOSED ATTACHMENTS:

- ☐ ELECTRICAL/MECHANICAL LOGS ☐ GEOLOGIC REPORT ☐ DST REPORT ☒ DIRECTIONAL SURVEY
☐ SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION ☐ CORE ANALYSIS ☐ OTHER:

30. WELL STATUS:

PROD
RECEIVED

31. INITIAL PRODUCTION

INTERVAL A (As shown in item #26)

DATE FIRST PRODUCED: 2/10/2012		TEST DATE: 2/14/2012		HOURS TESTED: 24		TEST PRODUCTION RATES: →	OIL – BBL: 0	GAS – MCF: 1,431	WATER – BBL: 408	PROD. METHOD: FLOWING
CHOKE SIZE: 20/64	TBG. PRESS. 1,155	CSG. PRESS. 1,847	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL: 0	GAS – MCF: 1431	WATER – BBL: 768	INTERVAL STATUS: PROD

INTERVAL B (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL C (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL D (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof. Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
				GREEN RIVER	1,154
				BIRD'S NEST	1,465
				MAHOGANY	1,865
				WASATCH	4,326
				MESAVERDE	6,538

35. ADDITIONAL REMARKS (Include plugging procedure)

The first 210' of the surface hole was drilled with a 12 1/4" bit. The remainder of surface hole was drilled with an 11" bit. DQX csg was run from surface to 5057'; LTC csg was run from 5057' to 8709'.

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) JAIME SCHARNOWSKE

TITLE REGULATORY ANALYST

SIGNATURE

Jaime Scharnowske

DATE

3/9/2012

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

** ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

US ROCKIES REGION
Operation Summary Report

Well: NBU 922-36G4CS RED

Spud Date: 11/9/2011

Project: UTAH-UINTAH

Site: NBU 922-36G3 PAD

Rig Name No: ENSIGN 139/139, PROPETRO 12/12

Event: DRILLING

Start Date: 10/19/2011

End Date: 12/19/2011

Active Datum: RKB @4,972.00usft (above Mean Sea Level)

UWI: SW/NE/0/9/S/22/E/36/0/0/26/PM/N/2434/E/0/2447/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
11/9/2011	3:00 - 16:00	13.00	MIRU	01	A	P		MOVE RIG AND CAMPS .2 MILES WITH 2 J D FIELD SERVICE TRUCKS. MOVE RIG WITH ONLY 2 CDL DRIVERS. RIG UP CAMPS W/ 2 MOUNTAIN WEST SWAMPERS. ENTIRE RIG ON LOCATION @ 16:00. RELEASE TRUCKS. (JD TRUCKS HAULED CAMPS, FRAC TANKS, PUMP , C-CANS, FUEL TANK. AND FORKLIFT.)
	16:00 - 19:30	3.50	MIRU	01	B	P		DRESS AND INSTALL DIVERTOR HEAD AND BOWIE LINE. -BUILD DITCH. SPOT IN RIG. SPOT IN CATWALK AND PIPE RACKS. RIG UP PIT PUMP. RIG UP PUMP. PRIME PUMP. INSPECT RIG. READY.
	19:30 - 20:00	0.50	PRSPD	01	B	P		HELD PRE-SPUD SAFETY MEETING. TALKED ABOUT PERSONEL PROTECTIVE EQUIPMENT. P/U 8" 1.83 BEND .17 RPG MUD MOTOR (2ND RUN) (SN 775-77248). M/U QD507 12.25" BIT (9TH RUN) (SN 7137066). TRIP IN TO SPUD.
	20:00 - 21:30	1.50	DRLSUR	02	D	P		SPUD 11/09/2011 20:00. DRILL 12.25" HOLE 44'-210'. (166', 140'/HR) GPM 400. DH RPM 68 RPM=45, WOB 5-15K. PSI ON/OFF 600/400. UP/DOWN/ ROT 20/20/20 K. DRAG 0 K. CIRC RESERVE W. 8.3# WATER. DRILL DOWN TO 210' W/ 6" COLLARS.
	21:30 - 0:00	2.50	DRLSUR	06	A	P		TRIP OUT. LAY DOWN 6" DRILL COLLARS, 12 1/4 BIT. CHECK BIT AND MOTOR. PICK UP Q506 11" BIT (1ST RUN) (SN 7024523) SCRIBE MOTOR. P/U 8" DIRECTIONAL ASSEMBLY AND SCRIBE. INSTALL EM TOOL. TRIP IN TO 210' TO DRILL AHEAD.
11/10/2011	0:00 - 6:00	6.00	DRLSUR	02	D	P		DRILL 11" HOLE ROTATE/SLIDE 210'-760' (550', 92'/HR). GPM 491. DH RPM 86 RPM=55, WOB 15-20K. PSI ON/OFF 1,140/910. UP/DOWN/ ROT 54/47/50 K. DRAG 4 K. CIRC RESERVE W. 8.3# WATER.
	6:00 - 18:00	12.00	DRLSUR	02	D	P		DRILL 11" HOLE ROTATE/SLIDE 760'-2090' (1330', 111'/HR). GPM 491. DH RPM 86 RPM=55, WOB 15-20K. PSI ON/OFF 1,500/1,309. UP/DOWN/ ROT 78/56/69 K. DRAG 9 K. CIRC RESERVE W. 8.3# WATER. LOST RETURNS @ 1580'. PUT AIR ON THE HOLE @ 1800 CFM.
	18:00 - 22:30	4.50	DRLSUR	02	D	P		DRILL 11" HOLE ROTATE/SLIDE 2090'-2465' (375', 111'/HR). TD @ 11/10/2011 22:30 GPM 491. DH RPM 86 RPM=55, WOB 15-20K. PSI ON/OFF 1,500/1,309. UP/DOWN/ ROT 78/56/69 K. DRAG 9 K. CIRC RESERVE W. 8.3# WATER. LOST RETURNS @ 1580'. PUT AIR ON THE HOLE @ 1800 CFM.
	22:30 - 0:00	1.50	DRLSUR	05	A	P		CIRCULATE AND CONDITION HOLE FOR CASING RUN.
11/11/2011	0:00 - 0:30	0.50	DRLSUR	05	A	P		CIRCULATE AND CONDITION HOLE FOR CASING RUN.
	0:30 - 4:45	4.25	DRLSUR	06	D	P		LDDS NO TIGHT WHILE LAYING DOWN DRILL STRING. LAY DOWN DIRECTIONAL TOOLS. PULL MOTOR AND BREAK BIT. LAY DOWN MOTOR.

US ROCKIES REGION
Operation Summary Report

Well: NBU 922-36G4CS RED

Spud Date: 11/9/2011

Project: UTAH-UINTAH

Site: NBU 922-36G3 PAD

Rig Name No: ENSIGN 139/139, PROPETRO 12/12

Event: DRILLING

Start Date: 10/19/2011

End Date: 12/19/2011

Active Datum: RKB @4,972.00usft (above Mean Sea Level)

UWI: SW/NE/0/9/S/22/E/36/0/0/26/PM/N/2434/E/0/2447/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	4:45 - 6:00	1.25	DRLSUR	12	A	P		MOVE PIPE RACKS AND CATWALK. PULL DIVERTER HEAD. RIG UP TO RUN CSG. AND MOVE CSG INTO POSITION TO P/U.
	6:00 - 8:30	2.50	DRLSUR	12	C	P		HOLD SAFETY MEETING. RUN 57 JTS OF 8-5/8" 28# J-55 LTC CSG. LAND FLOAT SHOE @ 2434.97' KB. LAND BAFFLE PLATE @ 2388.99' KB. MADE FLOAT SHOE UP WITH THREAD LOCK. RAN 5 TOTAL CENTRALIZERS.
	8:30 - 10:00	1.50	DRLSUR	12	B	P		HOLD SAFETY MEETING, RUN 200' OF 1". RIG DOWN RIG MOVE OFF WELL, REBUILD DITCH. RIG UP CEMENT TRUCK, 2" HARD LINES, CEMENT HEAD, LOAD PLUG.
	10:00 - 11:00	1.00	DRLSUR	12	E	P		PRESSURE TEST LINES TO 2000 PSI. PUMP 135 BBLs OF WATER AHEAD. CATCH PSI. PUMP 20 BBLs OF 8.3# GEL WATER AHEAD. PUMP (300 SX) 61.4 BBLs OF 15.8# 1.15 YD 5 GAL/SK PREMIUM CEMENT W/ 2% CALC. DROP PLUG ON FLY. DISPLACE W/ 146 BBLs OF H2O. NO CIRC THROUGH OUT. FINAL LIFT OF 340 PSI AT 4 BBL/MIN. BUMP PLUG WITH 700 PSI. HELD 700 PSI FOR 5 MIN. FLOAT DID NOT HOLD. SHUT IN CASING HEAD.
	11:00 - 16:00	5.00	DRLSUR	12	E	P		PUMP (150 SX) 30.7 BBLs OF SAME TAIL CEMENT W/ 4% CALC. DOWN BACKSIDE NO CEMENT TO SURFACE. WAIT 2 HOURS PUMP (225 SX) 46.1 BBLs OF SAME TAIL CEMENT W/ 4% CALC. DOWN BACKSIDE NO CEMENT TO SURFACE. SHUT DOWN AND CLEAN TRUCK. WAIT 2 HOURS PUMP (225 SX) 46.1 BBLs OF SAME TAIL CEMENT W/ 4% CALC. DOWN BACKSIDE NO CEMENT TO SURFACE. SHUT DOWN AND CLEAN TRUCK. WILL TOP OUT AFTER NEXT CEMENT JOB. RELEASE RIG @ 11/11/2011 16:00
12/11/2011	0:00 - 7:00	7.00	DRLPRO	01	A	P		R/D & GET READY F/ TRUCKS WILL BE MOVING THIS AM W/ JONES TRUCKING
	7:00 - 0:00	17.00	DRLPRO	01	A	P		MOVE RIG TO NBU 922 36G4CS W/ JONES TRUCKING & HAD 4 HAUL TRUCKS - 3 BED TRUCKS - 2 FORKLIFT & TRUCK LEFT LOC. @ 50:00 O'CLOCK & 100% MOVED & 60% R.U.R.T
12/12/2011	0:00 - 21:30	21.50	DRLPRO	01	B	P		RAISE DERRICK & CONT R.U.R.T
	21:30 - 23:30	2.00	DRLPRO	14	A	P		N/U B.O.P'S
	23:30 - 0:00	0.50	DRLPRO	15	A	P		TEST B.O.P'S
12/13/2011	0:00 - 5:00	5.00	DRLPRO	15	A	P		TEST B.O.P'S
	5:00 - 6:00	1.00	DRLPRO	06	A	P		LOAD RACK W/ BHA & STRAP
	6:00 - 7:00	1.00	DRLPRO	14	B	P		SAFETY MEETING & RIG INSPECTION
	7:00 - 14:30	7.50	DRLPRO	06	A	P		P/U MOTOR - BIT - DIR TOOLS & D.P
	14:30 - 16:30	2.00	DRLPRO	07	B	P		LEVEL RIG & INSTALL ROTHEAD & C/O SVER SUB
	16:30 - 18:00	1.50	DRLPRO	02	F	P		TAGG CEMENT @ 2331 & DRILL SHOE TRACK
	18:00 - 0:00	6.00	DRLPRO	02	D	P		SPUD 7.875 HOLE DIR DRILL F/2475 TO 3210 = 645' AVG 107.5 ,WOB18/20,RPM 38/1124,GPM 540,110 STKS,4/8K TORQ,PSI 1350/1600,SLIDE 78' @ 12%
12/14/2011	0:00 - 14:30	14.50	DRLPRO	02	D	P		DIR DRILL F/ 3120 TO 4477 =1357' AVG 93.5 ,WOB18/20,RPM 40/118,GPM 514,105 STKS,4/8K TORQ,PSI 1350/1600,SLIDE 207' @ 15%

US ROCKIES REGION
Operation Summary Report

Well: NBU 922-36G4CS RED

Spud Date: 11/9/2011

Project: UTAH-UINTAH

Site: NBU 922-36G3 PAD

Rig Name No: ENSIGN 139/139, PROPETRO 12/12

Event: DRILLING

Start Date: 10/19/2011

End Date: 12/19/2011

Active Datum: RKB @4,972.00usft (above Mean Sea Level)

UWI: SW/NE/0/9/S/22/E/36/0/0/26/PM/N/2434/E/0/2447/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
12/15/2011	14:30 - 15:00	0.50	DRLPRO	07	A	P		SER RIG
	15:00 - 0:00	9.00	DRLPRO	02	D	P		DIR DRILL F/ 4477 TO 5472 = 995' AVG 110.5 ,WOB18/20,RPM 40/118,GPM 514,105 STKS,4/8K TORQ,PSI 1350/1600,SLIDE 20' @ 2%
	0:00 - 10:00	10.00	DRLPRO	02	D	P		DIR DRILL F/ 5472 TO 6286 = 814' @ 81.4 FPH ,WOB18/20,RPM 40/118,GPM 514,105 STKS,4/8K TORQ,PSI 1350/1600,SLIDE 50' @ 6%
	10:00 - 11:00	1.00	DRLPRO	08	A	Z		PLC (ISSUES) DRAWWORKS
	11:00 - 12:00	1.00	DRLPRO	02	D	P		DIR DRILL F/ 6286 TO 6377 = 91' @ 91.0 FPH ,WOB18/20,RPM 40/118,GPM 514,105 STKS,4/8K TORQ,PSI 1350/1600,SLIDE 0' @ 0%
	12:00 - 13:00	1.00	DRLPRO	08	A	Z		WORK ON GEN #1 & #2 FUEL FILTERS
	13:00 - 14:30	1.50	DRLPRO	02	D	P		DIR DRILL F/ 6377 TO 6512 = 135' @ 90.0 FPH ,WOB18/20,RPM 40/118,GPM 514,105 STKS,4/8K TORQ,PSI 1350/1600,SLIDE 0' @ 0%
	14:30 - 15:00	0.50	DRLPRO	07	A	P		SER RIG
	15:00 - 0:00	9.00	DRLPRO	02	D	P		DIR DRILL F/ 6512 TO 7373 = 861' @ 95.6 FPH ,WOB18/20,RPM 40/118,GPM 514,105 STKS,4/8K TORQ,PSI 1350/1600,SLIDE 0' @ 0%
	0:00 - 7:00	7.00	DRLPRO	02	D	P		DIR DRILL F/ 7373 TO 7961 = 588' @ 84.0 FPH ,WOB18/20,RPM 40/118,GPM 514,105 STKS,4/8K TORQ,PSI 1350/1600,SLIDE 60' @ 10%
12/16/2011	7:00 - 8:30	1.50	DRLPRO	05	A	P		CIRC & MUD UP SYSTEM
	8:30 - 16:00	7.50	DRLPRO	02	D	P		DIR DRILL F/ 7961 TO 8368 = 407' @ 54.2 FPH ,WOB18/20,RPM 40/112,GPM 490,100 STKS,4/8K TORQ,PSI 1500/1800,SLIDE 0' @ 0%
	16:00 - 16:30	0.50	DRLPRO	07	A	P		SER RIG
	16:30 - 23:30	7.00	DRLPRO	02	D	P		DIR DRILL F/ 8368 TO 8735 = 367' @ 52.4 FPH ,WOB18/20,RPM 40/112,GPM 490,100 STKS,4/8K TORQ,PSI 1950/2300,SLIDE 0' @ 0%
	23:30 - 0:00	0.50	DRLPRO	05	A	P		CIRC BTM UP
	0:00 - 1:00	1.00	DRLPRO	05	A	P		CIRC BTM UP
	1:00 - 10:00	9.00	DRLPRO	06	E	P		WPER TRIP & PUMP OUT 30 STANDS & BACK REAMED TIGHT SPOTS @ 7864 - 6506 - 6079 - 4314 - 4235 & CONT T.O.H
	10:00 - 10:30	0.50	DRLPRO	07	A	P		C/O SAVER SUB
	10:30 - 18:00	7.50	DRLPRO	06	E	P		T.I.H & TIGHT SPOTS @ 3800 - 4235 - 5485
	18:00 - 19:00	1.00	DRLPRO	05	A	P		CIRC BTM UP
12/17/2011	19:00 - 0:00	5.00	DRLPRO	06	B	P		T.O.H F/ LOGS & (PUMPED OUT 26 STANDS)
	0:00 - 4:00	4.00	DRLPRO	06	B	P		T.O.H F/ LOGS
	4:00 - 4:30	0.50	DRLPRO	14	B	P		PULL WEAR BUSHING
	4:30 - 8:30	4.00	DRLPRO	11	E	P		HELD S/M & R/U HALLIBURTON WIRELINE & RUN TRIPLE COMBO & BRIDGE OUT @ 5923 - LOG OUT
	8:30 - 20:00	11.50	DRLPRO	12	C	P		HELD S/M - R/U FRANKS CAS CREW & RUN 86 JTS OF I-80 121 JTS I-80 DQX - PLUS TWO MARKERS - SHOE SET @ 8708 F/C SET @ 8666 & WASH CASING DOWN@ 5956 & 6024 & WASH LAST JT DOWN
	20:00 - 21:00	1.00	DRLPRO	05	D	P		CIRC BTM UP

US ROCKIES REGION
Operation Summary Report

Well: NBU 922-36G4CS RED				Spud Date: 11/9/2011						
Project: UTAH-UINTAH			Site: NBU 922-36G3 PAD				Rig Name No: ENSIGN 139/139, PROPETRO 12/12			
Event: DRILLING			Start Date: 10/19/2011					End Date: 12/19/2011		
Active Datum: RKB @4,972.00usft (above Mean Sea Level)				UWI: SW/NE/0/9/S/22/E/36/0/0/26/PM/N/2434/E/0/2447/0/0						
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation		
	21:00 - 23:30	2.50	DRLPRO	12	E	P		SAFETY MEET W/ BJ SER,R/U PRESSURE TEST TO 5K,PUMP 25 BBL FRESH,WATER & ,450 SX LEAD @12.0 2.26 YLD- PLII+8%GEL +4%R-3+2%SMS+25#SK CELLOFLAKE+5#SK KOL-SEAL , F/ TAIL 1100 SKS # 14.3 - YLD 1.31 YLD 50:50+2%GEL+10%SALT+2%R-3 & ,DISPLACE 135 BBLs,FINAL LIFT PSI ,BUMP PLUG 2362, W/ 500 OVER & FLOATS HELD, 10 BBL LEAD CEMENT BACK TO PIT, 1.5 BBLs WATER BACK TO TRUCK WASH OUT STACK & N/D & SET C-22 SLIPS W/ 110K - ROUGH CUT 4.5 CASING		
	23:30 - 0:00	0.50	DRLPRO	14	A	P				
12/19/2011	0:00 - 3:00	3.00	DRLPRO	14	A	P		FINISH N/D - & ROUGH CUT 4.5 & WASH OUT MUD TANKS & RELEASE RIG @ 03:00 ON 12/18/2011.		

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	NBU 922-36G4CS RED	Wellbore No.	OH
Well Name	NBU 922-36G4CS	Wellbore Name	NBU 922-36G4CS
Report No.	1	Report Date	1/28/2012
Project	UTAH-UINTAH	Site	NBU 922-36G3 PAD
Rig Name/No.		Event	COMPLETION
Start Date	1/28/2012	End Date	2/10/2012
Spud Date	11/9/2011	Active Datum	RKB @4,972.00usft (above Mean Sea Level)
UWI	SW/NE/0/9/S/22/E/36/0/0/26/PM/N/2434/E/0/2447/0/0		

1.3 General

Contractor		Job Method		Supervisor	
Perforated Assembly	PRODUCTION CASING	Conveyed Method			

1.4 Initial Conditions

Fluid Type		Fluid Density		Gross Interval	6,814.0 (usft)-8,586.0 (usft)	Start Date/Time	2/6/2012 12:00AM
Surface Press		Estimate Res Press		No. of Intervals	34	End Date/Time	2/6/2012 12:00AM
TVD Fluid Top		Fluid Head		Total Shots	168	Net Perforation Interval	52.00 (usft)
Hydrostatic Press		Press Difference		Avg Shot Density	3.23 (shot/ft)	Final Surface Pressure	
Balance Cond	NEUTRAL					Final Press Date	

1.5 Summary

2 Intervals

2.1 Perforated Interval

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Carr Manuf.	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
2/6/2012 12:00AM	MESAVERDE/			6,814.0	6,820.0	4.00		0.360	EXP/	3.375	90.00			23.00 PRODUCTION	
														N	

2.1 Perforated Interval (Continued)

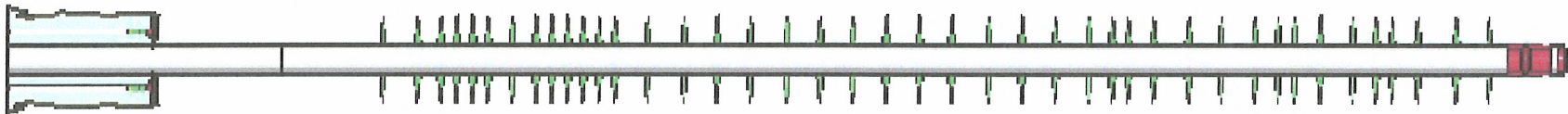
Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
2/6/2012 12:00AM	MESAVERDE/			6,907.0	6,908.0	3.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
2/6/2012 12:00AM	MESAVERDE/			6,919.0	6,920.0	3.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
2/6/2012 12:00AM	MESAVERDE/			6,929.0	6,930.0	3.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
2/6/2012 12:00AM	MESAVERDE/			6,952.0	6,953.0	3.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
2/6/2012 12:00AM	MESAVERDE/			6,969.0	6,970.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
2/6/2012 12:00AM	MESAVERDE/			6,985.0	6,986.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
2/6/2012 12:00AM	MESAVERDE/			7,000.0	7,002.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
2/6/2012 12:00AM	MESAVERDE/			7,197.0	7,198.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
2/6/2012 12:00AM	MESAVERDE/			7,312.0	7,314.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
2/6/2012 12:00AM	MESAVERDE/			7,360.0	7,363.0	3.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
2/6/2012 12:00AM	MESAVERDE/			7,408.0	7,410.0	3.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
2/6/2012 12:00AM	MESAVERDE/			7,518.0	7,520.0	3.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
2/6/2012 12:00AM	MESAVERDE/			7,566.0	7,568.0	3.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
2/6/2012 12:00AM	MESAVERDE/			7,605.0	7,606.0	3.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
2/6/2012 12:00AM	MESAVERDE/			7,639.0	7,640.0	3.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
2/6/2012 12:00AM	MESAVERDE/			7,699.0	7,700.0	3.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
2/6/2012 12:00AM	MESAVERDE/			7,723.0	7,724.0	3.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
2/6/2012 12:00AM	MESAVERDE/			7,849.0	7,850.0	3.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
2/6/2012 12:00AM	MESAVERDE/			7,893.0	7,894.0	3.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
2/6/2012 12:00AM	MESAVERDE/			7,950.0	7,952.0	3.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
2/6/2012 12:00AM	MESAVERDE/			8,000.0	8,001.0	3.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
2/6/2012 12:00AM	MESAVERDE/			8,021.0	8,022.0	3.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
2/6/2012 12:00AM	MESAVERDE/			8,051.0	8,053.0	3.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
2/6/2012 12:00AM	MESAVERDE/			8,137.0	8,138.0	3.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
2/6/2012 12:00AM	MESAVERDE/			8,163.0	8,164.0	3.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
2/6/2012 12:00AM	MESAVERDE/			8,223.0	8,224.0	3.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
2/6/2012 12:00AM	MESAVERDE/			8,241.0	8,242.0	3.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
2/6/2012 12:00AM	MESAVERDE/			8,295.0	8,296.0	3.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
2/6/2012 12:00AM	MESAVERDE/			8,331.0	8,333.0	3.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
2/6/2012 12:00AM	MESAVERDE/			8,351.0	8,352.0	3.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
2/6/2012 12:00AM	MESAVERDE/			8,404.0	8,406.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
2/6/2012 12:00AM	MESAVERDE/			8,545.0	8,547.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
2/6/2012 12:00AM	MESAVERDE/			8,584.0	8,586.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	

3 Plots

3.1 Wellbore Schematic



US ROCKIES REGION
Operation Summary Report

Well: NBU 922-36G4CS RED

Spud Date: 11/9/2011

Project: UTAH-UINTAH

Site: NBU 922-36G3 PAD

Rig Name No: MILES 2/2

Event: COMPLETION

Start Date: 1/28/2012

End Date: 2/10/2012

Active Datum: RKB @4,972.00usft (above Mean Sea Level)

UWI: SW/NE/0/9/S/22/E/36/0/0/26/PM/N/2434/E/0/2447/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
1/23/2012	-							
1/28/2012	9:00 - 11:00	2.00	COMP	33		P		FILL SURFACE CSG. MIRU B&C QUICK TEST. PSI TEST T/ 1000 PSI. HELD FOR 15 MIN LOST 13 PSI. PSI TEST T/ 3500 PSI. HELD FOR 15 MIN LOST 38 PSI. 1ST PSI TEST T/ 7000 PSI. HELD FOR 30 MIN LOST 75 PSI. NO COMMUNICATION OR MIGRATION WITH SURFACE CSG BLEED OFF PSI. MOVE T/ NEXT WELL. SWIFW
2/3/2012	7:00 - 7:15	0.25	COMP	48		P		HSM. HIGH PSI LINES
	7:15 - 18:00	10.75	COMP	37	B	P		MIRU B & C QUICK TEST. PSI TEST BOTH FRAC VALVES T/ 7000 PSI. HELD FOR 10 MIN. GOOD TEST. BLEED OFF PSI. MIRU CASEHOLE SOLUTIONS WL. PERF STG 1)PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH PERF STG AS PER DESIGN. POOH. SWIFN.
2/7/2012	6:45 - 7:00	0.25	COMP	48		P		HSM. HIGH PSI LINES & WL AWAIRNESS
	7:00 - 18:00	11.00	COMP	36	B	P		PSI TEST FRAC LINES T/ 8000 PSI. LOST 3200 PSI. NO VISIBLE LEAKS. BLEED OFF PSI. FRAC STG 1)WHP 490 PSI, BRK 3144 PSI @ 4.9 BPM. ISIP 2538 PSI, FG .74. CALC PERFS OPEN @ 50.6 BPM @ 5313 PSI = 100% HOLES OPEN. ISIP 2569 PSI, FG .74, NPI 31 PSI. MP 6495 PSI, MR 51 BPM, AP 4683 PSI, AR 50.4 BPM, PUMPED 30/50 OWATTA SAND. SWI, X-OVER FOR WL.
								PERF STG 2)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 8382' P/U PERF AS PER DESIGN. POOH. SWIFN.

US ROCKIES REGION
Operation Summary Report

Well: NBU 922-36G4CS RED

Spud Date: 11/9/2011

Project: UTAH-UINTAH

Site: NBU 922-36G3 PAD

Rig Name No: MILES 2/2

Event: COMPLETION

Start Date: 1/28/2012

End Date: 2/10/2012

Active Datum: RKB @4,972.00usft (above Mean Sea Level)

UWI: SW/NE/0/9/S/22/E/36/0/0/26/PM/N/2434/E/0/2447/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
2/8/2012	7:00 - 18:00	11.00	COMP	36	B	P		<p>FRAC STAGE 2) WHP 1851 PSI, BRK 2727 PSI @ 4.5 BPM. ISIP 2156 PSI, FG .70. CALC PERFS OPEN @ 50.6 BPM @ 4687 PSI = 100% HOLES OPEN. ISIP 2491 PSI, FG .74, NPI 335 PSI. MP 6006 PSI, MR 51.2 BPM, AP 4426 PSI, AR 50.7 BPM, PUMPED 30/50 OWATTA SAND</p> <p>PERF STAGE 3) PU 4 1/2 HAL CBP, & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE, 120 DEG PHASING, SET CBP @ 8083'. P/U & PERF AS PER DES.</p> <p>FRAC STAGE 3 WHP 1312 PSI, BRK 2536 PSI @ 4.1 BPM. ISIP 1673 PSI, FG .65. CALC PERFS OPEN @ 51 BPM @ 4096 PSI = 100% HOLES OPEN. ISIP 2624 PSI, FG .77, NPI 951 PSI. MP 5277 PSI, MR 51.2 BPM, AP 4031 PSI, AR 50.8 BPM, PUMPED 30/50 OWATTA SAND</p> <p>PERF STAGE 4) PU 4 1/2 HAL CBP, & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE, 120 DEG PHASING. SET CBP @ 7754'. P/U & PERF AS PER DES.</p> <p>FRAC STAGE 4) WHP 964 PSI, BRK 2424 PSI @ 4.2 BPM. ISIP 1542 PSI, FG .64. CALC PERFS OPEN @ 50.6 BPM @ 4109 PSI = 100% HOLES OPEN. ISIP 2185 PSI, FG .73, NPI 643 PSI. MP 5007 PSI, MR 51.4 BPM, AP 3684 PSI, AR 51 BPM, PUMPED 30/50 OWATTA SAND</p> <p>PERF STAGE 5) PU 4 1/2 HAL CBP, & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE, 120 DEG PHASING, SET CBP @ 7440. P/U & PERF AS PER DES.</p> <p>FRAC STAGE 5) WHP 256 PSI, BRK 1900 PSI @ 4.3 BPM. ISIP 952 PSI, FG .57. CALC PERFS OPEN @ 50.8 BPM @ 4511 PSI = 77% HOLES OPEN. ISIP 2302 PSI, FG .75, NPI 1346 PSI. MP 4670 PSI, MR 51.4 BPM, AP 3829 PSI, AR 51 BPM, PUMPED 30/50 OWATTA SAND</p> <p>PERF STAGE 6) PU 4 1/2 HAL CBP, & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE, 120 DEG PHASING. SET CBP @ 7032'. POOH. SWIFN. HSM. HIGH PSI LINES. WIRE LINE SAFETY.</p>
2/9/2012	6:45 - 7:00	0.25	COMP	48		P		

US ROCKIES REGION
Operation Summary Report

Well: NBU 922-36G4CS RED

Spud Date: 11/9/2011

Project: UTAH-UINTAH

Site: NBU 922-36G3 PAD

Rig Name No: MILES 2/2

Event: COMPLETION

Start Date: 1/28/2012

End Date: 2/10/2012

Active Datum: RKB @4,972.00usft (above Mean Sea Level)

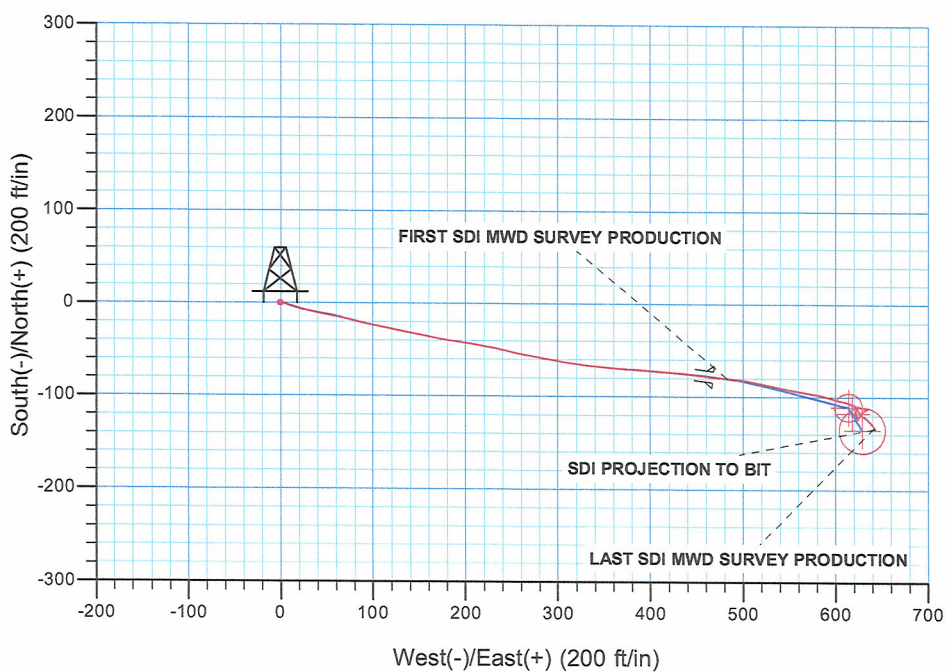
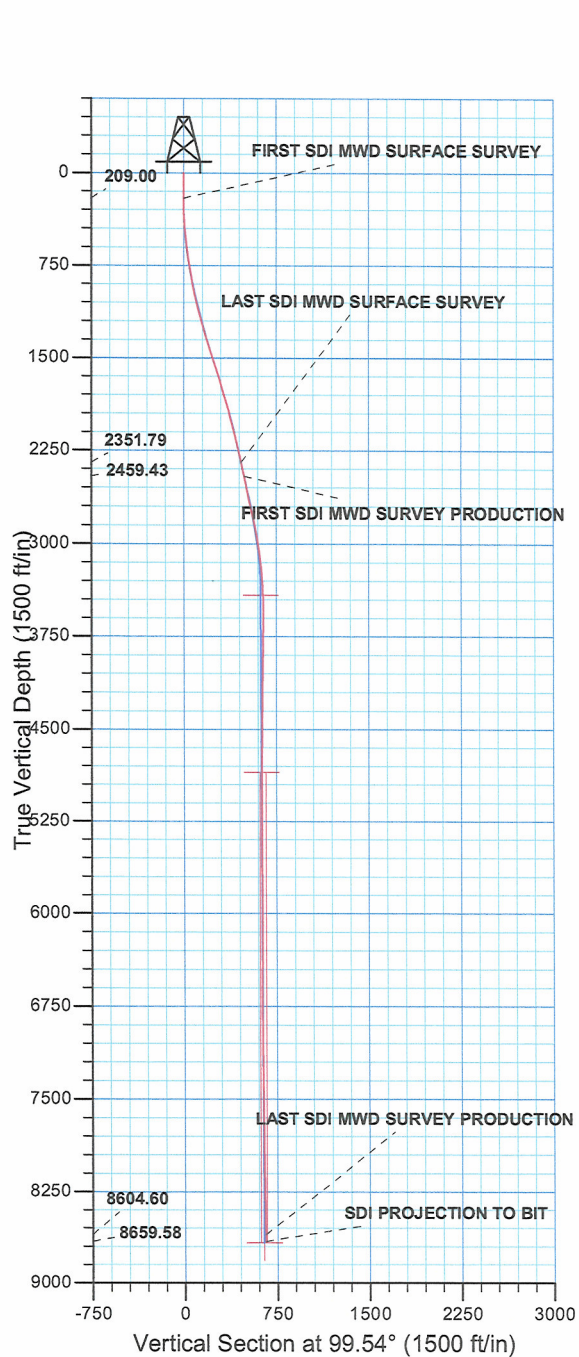
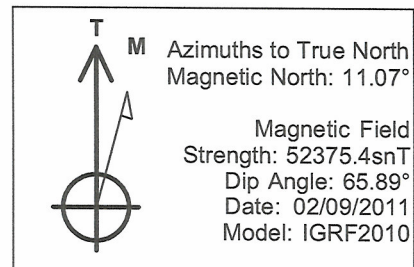
UWI: SW/NE/0/9/S/22/E/36/0/0/26/PM/N/2434/E/0/2447/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:00 - 18:00	11.00	COMP	36	B	P		<p>FRAC STG 6)WHP 280 PSI, BRK 2289 PSI @ 4.3 BPM. ISIP 1257 PSI, FG .62. CALC PERFS OPEN @ 50.9 BPM @ 3862 PSI = 100% HOLES OPEN. ISIP 2561 PSI, FG .81, NPI 1304 PSI. MP 4837 PSI, MR 51.5 BPM, AP 3907 PSI, AR 50.8 BPM, PUMPED 30/50 OWATTA SAND. SWI, X-OVER FOR WL.</p> <p>PERF STG 7)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 6850' P/U PERF AS PER DESIGN. POOH, X-OVER FOR FRAC CREW.</p> <p>FRAC STG 7)WHP 560 PSI, BRK 2810 PSI @ 4.5 BPM. ISIP 2100 PSI, FG .75. CALC PERFS OPEN @ 50.6 BPM @ 4492 PSI = 100% HOLES OPEN. ISIP 2538 PSI, FG .81, NPI 438 PSI. MP 5263 PSI, MR 51 BPM, AP 4001 PSI, AR 50.7 BPM, PUMPED 30/50 OWATTA SAND. SWI,X -OVER FOR WL.</p> <p>PU 4 1/2 8K HAL CBP. RIH SET KILL PLUG @ 6764'. POOH, SWIFN.</p> <p>TOTAL SAND = 234,566 LBS TOTAL CLFL = 11,639 BBLS MILL PLUGS</p> <p>MIRU, NDWH, NU BOP'S, TEST BOP'S, PU BIT, BIT SUB, SEATING NIPPLE, POBS, TBG, TIH TO PLUG# 1, 6764', MILL 7 PLUGS, CLEAN OUT 40' SAND TO PBTD, PU TO 8106.79", LAND TBG, ND BOP'S, NUWH, POBS, 3000# TURN TO FBC, RDMO</p> <p>PLUG# 1 6764' 10' SAND 5 MIN 400# KICK PLUG# 2 6850' 30' SAND 5 MIN 100# KICK PLUG# 3 7032' 30' SAND 5 MIN 200# KICK PLUG# 4 7440' 30' SAND 5 MIN 400# KICK PLUG# 5 7754' 30' SAND 5 MIN 200# KICK PLUG# 6 8083' 40' SAND 7 MIN 500# KICK PLUG# 7 8382' 30' SAND 5 MIN 300# KICK</p> <p>PBTD 8676' BTM PERF 8586'</p> <p>TBG 255 JTS 8089.76' KB 15.00' HANGER .83' XNSN 1.875" 2.20' EOT 8106.79'</p> <p>FRAC WTR 11,637 BBLS RCVD 2,800 BBLS LTR 8837 BBLS</p>
2/10/2012	7:00 - 7:30	0.50	COMP	48		P		
	7:30 - 17:30	10.00	COMP	44		P		

US ROCKIES REGION
Operation Summary Report

Well: NBU 922-36G4CS RED				Spud Date: 11/9/2011				
Project: UTAH-UINTAH			Site: NBU 922-36G3 PAD			Rig Name No: MILES 2/2		
Event: COMPLETION			Start Date: 1/28/2012		End Date: 2/10/2012			
Active Datum: RKB @4,972.00usft (above Mean Sea Level)				UWI: SW/NE/0/9/S/22/E/36/0/0/26/PM/N/2434/E/0/2447/0/0				
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
2/14/2012	7:00 -		PROD	50				WELL IP'D ON 2/14/12 - 1431 MCFD, 0 BOPD, 408 BWPD, CP 1847#, FTP 1155#, CK 20/64", LP 107#, 24 HRS

WELL DETAILS: NBU 922-36G4CS					
GL 4958' & KB 14' @ 4972.00ft (ENSGN 139)					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14527629.00	2092221.65	39° 59' 35.250 N	109° 23' 13.006 W



PROJECT DETAILS: Uintah County, UT UTM12	
Geodetic System:	Universal Transverse Mercator (US Survey Feet)
Datum:	NAD 1927 - Western US
Ellipsoid:	Clarke 1866
Zone:	Zone 12N (114 W to 108 W)
Location:	SECTION 36 T9S R22E
System Datum:	Mean Sea Level

Design: OH (NBU 922-36G4CS/OH)

Created By: RobertScott Date: 10:02, January 16 2012



Scientific Drilling
Rocky Mountain Operations

Kerr McGee Oil and Gas Onshore LP

**Uintah County, UT UTM12
NBU 922-36G3 PAD
NBU 922-36G4CS**

OH

Design: OH

Standard Survey Report

16 January, 2012

Anadarko 
Petroleum Corporation

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT UTM12
Site: NBU 922-36G3 PAD
Well: NBU 922-36G4CS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 922-36G4CS
TVD Reference: GL 4958' & KB 14' @ 4972.00ft (ENSIGN 139)
MD Reference: GL 4958' & KB 14' @ 4972.00ft (ENSIGN 139)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Project	Uintah County, UT UTM12		
Map System:	Universal Transverse Mercator (US Survey Foot)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 - Western US		
Map Zone:	Zone 12N (114 W to 108 W)		

Site	NBU 922-36G3 PAD, SECTION 36 T9S R22E		
Site Position:		Northing:	14,527,629.00 usft
From:	Lat/Long	Easting:	2,092,221.64 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in
		Latitude:	39° 59' 35.250 N
		Longitude:	109° 23' 13.006 W
		Grid Convergence:	1.04 °

Well	NBU 922-36G4CS, 2434 FNL 2447 FEL		
Well Position	+N/-S	0.00 ft	Northing: 14,527,629.00 usft
	+E/-W	0.00 ft	Easting: 2,092,221.64 usft
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft
		Latitude:	39° 59' 35.250 N
		Longitude:	109° 23' 13.006 W
		Ground Level:	4,958.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	02/09/11	11.07	65.89	52,375

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	99.54	

Survey Program	Date	01/16/12			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
10.00	2,410.00	Survey #1 SDI MWD SURFACE (OH)	MWD SDI	MWD - Standard ver 1.0.1	
2,520.00	8,735.00	Survey #2 SDI MWD PRODUCTION (OH)	MWD SDI	MWD - Standard ver 1.0.1	

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00
209.00	0.22	343.48	209.00	0.37	-0.11	-0.17	0.11	0.11	0.00
FIRST SDI MWD SURFACE SURVEY									
294.00	1.14	109.34	293.99	0.24	0.64	0.59	1.51	1.08	148.07
350.00	3.04	104.75	349.95	-0.32	2.60	2.62	3.40	3.39	-8.20
454.00	4.74	107.42	453.71	-2.31	9.37	9.62	1.64	1.63	2.57
544.00	6.47	106.51	543.28	-4.86	17.78	18.34	1.92	1.92	-1.01
634.00	7.45	103.77	632.61	-7.69	28.31	29.19	1.15	1.09	-3.04
724.00	8.57	98.74	721.74	-10.10	40.61	41.72	1.47	1.24	-5.59

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT UTM12
Site: NBU 922-36G3 PAD
Well: NBU 922-36G4CS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 922-36G4CS
TVD Reference: GL 4958' & KB 14' @ 4972.00ft (ENSIGN 139)
MD Reference: GL 4958' & KB 14' @ 4972.00ft (ENSIGN 139)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
814.00	10.19	101.53	810.53	-12.71	55.04	56.38	1.87	1.80	3.10
904.00	11.44	103.38	898.93	-16.37	71.52	73.24	1.44	1.39	2.06
994.00	12.88	102.58	986.91	-20.62	89.99	92.17	1.61	1.60	-0.89
1,084.00	13.82	101.09	1,074.47	-24.87	110.33	112.93	1.11	1.04	-1.66
1,174.00	15.27	101.84	1,161.59	-29.37	132.48	135.52	1.62	1.61	0.83
1,264.00	15.81	102.35	1,248.30	-34.42	156.06	159.61	0.62	0.60	0.57
1,354.00	16.67	98.17	1,334.71	-38.88	180.81	184.76	1.61	0.96	-4.64
1,444.00	17.42	99.95	1,420.76	-43.04	206.86	211.13	1.02	0.83	1.98
1,534.00	17.40	101.07	1,506.63	-47.96	233.34	238.06	0.37	-0.02	1.24
1,624.00	16.89	101.82	1,592.63	-53.22	259.34	264.57	0.62	-0.57	0.83
1,714.00	16.55	100.68	1,678.83	-58.27	284.73	290.45	0.52	-0.38	-1.27
1,804.00	15.89	99.14	1,765.25	-62.60	309.50	315.59	0.88	-0.73	-1.71
1,894.00	15.94	96.76	1,851.80	-66.02	333.93	340.25	0.73	0.06	-2.64
1,984.00	16.25	95.29	1,938.27	-68.63	358.74	365.16	0.57	0.34	-1.63
2,074.00	13.95	94.13	2,025.16	-70.57	382.11	388.52	2.58	-2.56	-1.29
2,164.00	14.04	94.12	2,112.49	-72.14	403.81	410.19	0.10	0.10	-0.01
2,254.00	13.80	94.20	2,199.84	-73.71	425.41	431.74	0.27	-0.27	0.09
2,344.00	12.86	96.88	2,287.42	-75.70	446.06	452.43	1.25	-1.04	2.98
2,410.00	12.61	96.51	2,351.79	-77.39	460.51	466.97	0.40	-0.38	-0.56
LAST SDI MWD SURFACE SURVEY									
2,520.00	11.15	95.06	2,459.43	-79.69	483.03	489.56	1.35	-1.33	-1.32
FIRST SDI MWD SURVEY PRODUCTION									
2,610.00	12.61	98.07	2,547.51	-81.84	501.43	508.06	1.76	1.62	3.34
2,701.00	12.40	102.64	2,636.35	-85.37	520.80	527.74	1.11	-0.23	5.02
2,791.00	12.12	102.01	2,724.30	-89.45	539.47	546.83	0.34	-0.31	-0.70
2,882.00	11.74	99.92	2,813.33	-93.03	557.93	565.64	0.63	-0.42	-2.30
2,972.00	11.07	100.91	2,901.55	-96.25	575.44	583.43	0.78	-0.74	1.10
3,063.00	10.10	103.24	2,991.00	-99.73	591.78	600.13	1.16	-1.07	2.56
3,154.00	8.55	105.12	3,080.80	-103.32	606.08	614.82	1.74	-1.70	2.07
3,244.00	6.17	110.08	3,170.05	-106.73	617.08	626.24	2.73	-2.64	5.51
3,335.00	4.57	108.16	3,260.65	-109.54	625.12	634.63	1.77	-1.76	-2.11
3,425.00	3.40	96.98	3,350.43	-110.98	631.18	640.84	1.55	-1.30	-12.42
3,516.00	1.75	92.69	3,441.34	-111.37	635.24	644.92	1.82	-1.81	-4.71
3,606.00	0.70	253.34	3,531.33	-111.59	636.09	645.79	2.69	-1.17	178.50
3,697.00	1.72	250.26	3,622.30	-112.21	634.27	644.10	1.12	1.12	-3.38
3,787.00	1.72	239.19	3,712.26	-113.36	631.84	641.89	0.37	0.00	-12.30
3,878.00	1.74	226.60	3,803.22	-115.01	629.66	640.02	0.42	0.02	-13.84
3,968.00	1.92	209.14	3,893.18	-117.27	627.94	638.69	0.65	0.20	-19.40
4,059.00	2.08	214.13	3,984.12	-119.96	626.27	637.49	0.26	0.18	5.48
4,149.00	0.73	208.76	4,074.09	-121.82	625.08	636.62	1.51	-1.50	-5.97
4,240.00	0.35	228.75	4,165.09	-122.51	624.59	636.25	0.46	-0.42	21.97
4,330.00	0.66	348.63	4,255.09	-122.18	624.28	635.90	0.99	0.34	133.20
4,421.00	0.53	337.83	4,346.08	-121.28	624.02	635.49	0.19	-0.14	-11.87

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT UTM12
Site: NBU 922-36G3 PAD
Well: NBU 922-36G4CS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 922-36G4CS
TVD Reference: GL 4958' & KB 14' @ 4972.00ft (ENSIGN 139)
MD Reference: GL 4958' & KB 14' @ 4972.00ft (ENSIGN 139)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,511.00	0.24	346.90	4,436.08	-120.71	623.82	635.20	0.33	-0.32	10.08
4,602.00	0.17	296.02	4,527.08	-120.47	623.65	634.99	0.21	-0.08	-55.91
4,693.00	1.18	332.01	4,618.07	-119.58	623.09	634.29	1.15	1.11	39.55
4,783.00	0.58	332.19	4,708.06	-118.36	622.44	633.45	0.67	-0.67	0.20
4,874.00	0.48	349.53	4,799.06	-117.58	622.16	633.04	0.21	-0.11	19.05
4,964.00	0.78	349.00	4,889.05	-116.60	621.98	632.70	0.33	0.33	-0.59
5,055.00	0.62	317.32	4,980.05	-115.63	621.52	632.09	0.45	-0.18	-34.81
5,145.00	0.07	296.09	5,070.04	-115.25	621.14	631.65	0.62	-0.61	-23.59
5,235.00	0.41	44.60	5,160.04	-115.00	621.32	631.79	0.49	0.38	120.57
5,326.00	0.09	225.36	5,251.04	-114.82	621.50	631.93	0.55	-0.35	-196.97
5,417.00	0.18	130.41	5,342.04	-114.96	621.56	632.01	0.23	0.10	-104.34
5,507.00	0.71	148.84	5,432.04	-115.53	621.95	632.50	0.60	0.59	20.48
5,598.00	0.41	149.00	5,523.03	-116.29	622.41	633.08	0.33	-0.33	0.18
5,688.00	0.64	165.65	5,613.03	-117.05	622.70	633.49	0.30	0.26	18.50
5,779.00	1.13	171.71	5,704.02	-118.43	622.96	633.97	0.55	0.54	6.66
5,869.00	1.19	150.24	5,794.00	-120.12	623.55	634.83	0.48	0.07	-23.86
5,960.00	1.32	168.23	5,884.98	-121.97	624.23	635.81	0.45	0.14	19.77
6,050.00	0.37	191.14	5,974.97	-123.27	624.39	636.18	1.10	-1.06	25.46
6,141.00	1.14	356.17	6,065.96	-122.65	624.27	635.96	1.65	0.85	181.35
6,231.00	1.52	343.08	6,155.94	-120.62	623.86	635.23	0.54	0.42	-14.54
6,322.00	1.37	350.08	6,246.91	-118.39	623.32	634.33	0.25	-0.16	7.69
6,412.00	1.21	351.22	6,336.89	-116.39	622.99	633.67	0.18	-0.18	1.27
6,503.00	1.02	358.64	6,427.87	-114.63	622.83	633.21	0.26	-0.21	8.15
6,593.00	0.52	19.59	6,517.86	-113.45	622.95	633.13	0.63	-0.56	23.28
6,684.00	0.54	23.79	6,608.86	-112.67	623.26	633.31	0.05	0.02	4.62
6,774.00	0.19	30.32	6,698.86	-112.15	623.50	633.47	0.39	-0.39	7.26
6,865.00	0.22	131.98	6,789.86	-112.14	623.71	633.67	0.35	0.03	111.71
6,955.00	0.47	111.51	6,879.86	-112.39	624.18	634.18	0.31	0.28	-22.74
7,046.00	0.53	166.09	6,970.85	-112.93	624.63	634.71	0.51	0.07	59.98
7,136.00	0.98	137.93	7,060.84	-113.91	625.25	635.48	0.63	0.50	-31.29
7,227.00	0.83	154.55	7,151.83	-115.08	626.05	636.47	0.33	-0.16	18.26
7,318.00	0.85	165.60	7,242.82	-116.33	626.50	637.12	0.18	0.02	12.14
7,408.00	0.58	150.31	7,332.82	-117.37	626.89	637.68	0.36	-0.30	-16.99
7,499.00	0.71	134.96	7,423.81	-118.17	627.52	638.43	0.24	0.14	-16.87
7,589.00	0.99	122.38	7,513.80	-118.98	628.57	639.60	0.37	0.31	-13.98
7,679.00	1.52	120.64	7,603.78	-120.01	630.26	641.43	0.59	0.59	-1.93
7,770.00	1.78	124.60	7,694.74	-121.42	632.46	643.83	0.31	0.29	4.35
7,860.00	1.47	145.11	7,784.71	-123.17	634.27	645.91	0.73	-0.34	22.79
7,951.00	0.44	120.55	7,875.69	-124.30	635.24	647.05	1.19	-1.13	-26.99
8,041.00	0.81	138.71	7,965.69	-124.95	635.95	647.87	0.46	0.41	20.18
8,132.00	1.01	128.69	8,056.68	-125.94	637.00	649.07	0.28	0.22	-11.01
8,222.00	0.61	126.12	8,146.67	-126.72	638.01	650.19	0.45	-0.44	-2.86
8,313.00	0.57	112.80	8,237.66	-127.18	638.82	651.06	0.16	-0.04	-14.64
8,403.00	0.87	151.22	8,327.65	-127.95	639.56	651.92	0.61	0.33	42.69

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT UTM12
Site: NBU 922-36G3 PAD
Well: NBU 922-36G4CS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 922-36G4CS
TVD Reference: GL 4958' & KB 14' @ 4972.00ft (ENSIGN 139)
MD Reference: GL 4958' & KB 14' @ 4972.00ft (ENSIGN 139)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,494.00	0.75	137.91	8,418.65	-129.00	640.29	652.82	0.24	-0.13	-14.63
8,584.00	1.23	147.84	8,508.63	-130.25	641.20	653.92	0.56	0.53	11.03
8,680.00	1.55	144.27	8,604.60	-132.18	642.51	655.53	0.35	0.33	-3.72
LAST SDI MWD SURVEY PRODUCTION									
8,735.00	1.55	144.27	8,659.58	-133.39	643.38	656.59	0.00	0.00	0.00
SDI PROJECTION TO BIT									

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
209.00	209.00	0.37	-0.11	FIRST SDI MWD SURFACE SURVEY
2,410.00	2,351.79	-77.39	460.51	LAST SDI MWD SURFACE SURVEY
2,520.00	2,459.43	-79.69	483.03	FIRST SDI MWD SURVEY PRODUCTION
8,680.00	8,604.60	-132.18	642.51	LAST SDI MWD SURVEY PRODUCTION
8,735.00	8,659.58	-133.39	643.38	SDI PROJECTION TO BIT

Checked By: _____ Approved By: _____ Date: _____



Scientific Drilling
Rocky Mountain Operations

Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12
NBU 922-36G3 PAD
NBU 922-36G4CS

OH

Design: OH

Survey Report - Geographic

16 January, 2012

Anadarko 
Petroleum Corporation

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT UTM12
Site: NBU 922-36G3 PAD
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North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Project Uintah County, UT UTM12

Map System: Universal Transverse Mercator (US Survey Foot)
Geo Datum: NAD 1927 - Western US
Map Zone: Zone 12N (114 W to 108 W)

System Datum: Mean Sea Level

Site NBU 922-36G3 PAD, SECTION 36 T9S R22E

Site Position:
From: Lat/Long **Northing:** 14,527,629.00 usft **Latitude:** 39° 59' 35.250 N
Position Uncertainty: 0.00 ft **Easting:** 2,092,221.64 usft **Longitude:** 109° 23' 13.006 W
Slot Radius: 13.200 in **Grid Convergence:** 1.04 °

Well NBU 922-36G4CS, 2434 FNL 2447 FEL

Well Position **+N/-S** 0.00 ft **Northing:** 14,527,629.00 usft **Latitude:** 39° 59' 35.250 N
+E/-W 0.00 ft **Easting:** 2,092,221.64 usft **Longitude:** 109° 23' 13.006 W
Position Uncertainty 0.00 ft **Wellhead Elevation:** ft **Ground Level:** 4,958.00 ft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	02/09/11	11.07	65.89	52,375

Design OH

Audit Notes:

Version: 1.0 **Phase:** ACTUAL **Tie On Depth:** 0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	99.54

Survey Program **Date** 01/16/12

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
10.00	2,410.00	Survey #1 SDI MWD SURFACE (OH)	MWD SDI	MWD - Standard ver 1.0.1
2,520.00	8,735.00	Survey #2 SDI MWD PRODUCTION (OH)	MWD SDI	MWD - Standard ver 1.0.1

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	14,527,629.00	2,092,221.64	39° 59' 35.250 N	109° 23' 13.006 W
10.00	0.00	0.00	10.00	0.00	0.00	14,527,629.00	2,092,221.64	39° 59' 35.250 N	109° 23' 13.006 W
209.00	0.22	343.48	209.00	0.37	-0.11	14,527,629.37	2,092,221.53	39° 59' 35.254 N	109° 23' 13.007 W
FIRST SDI MWD SURFACE SURVEY									
294.00	1.14	109.34	293.99	0.24	0.64	14,527,629.26	2,092,222.28	39° 59' 35.252 N	109° 23' 12.997 W
350.00	3.04	104.75	349.95	-0.32	2.60	14,527,628.73	2,092,224.25	39° 59' 35.247 N	109° 23' 12.972 W
454.00	4.74	107.42	453.71	-2.31	9.37	14,527,626.86	2,092,231.05	39° 59' 35.227 N	109° 23' 12.885 W
544.00	6.47	106.51	543.28	-4.86	17.78	14,527,624.46	2,092,239.51	39° 59' 35.202 N	109° 23' 12.777 W
634.00	7.45	103.77	632.61	-7.69	28.31	14,527,621.82	2,092,250.09	39° 59' 35.174 N	109° 23' 12.642 W
724.00	8.57	98.74	721.74	-10.10	40.61	14,527,619.64	2,092,262.43	39° 59' 35.150 N	109° 23' 12.484 W
814.00	10.19	101.53	810.53	-12.71	55.04	14,527,617.29	2,092,276.90	39° 59' 35.124 N	109° 23' 12.298 W

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT UTM12
Site: NBU 922-36G3 PAD
Well: NBU 922-36G4CS
Wellbore: OH
Design: CH

Local Co-ordinate Reference: Well NBU 922-36G4CS
TVD Reference: GL 4958' & KB 14' @ 4972.00ft (ENSIGN 139)
MD Reference: GL 4958' & KB 14' @ 4972.00ft (ENSIGN 139)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
904.00	11.44	103.38	898.93	-16.37	71.52	14,527,613.93	2,092,293.45	39° 59' 35.088 N	109° 23' 12.087 W
994.00	12.88	102.58	986.91	-20.62	89.99	14,527,610.02	2,092,312.00	39° 59' 35.046 N	109° 23' 11.849 W
1,084.00	13.82	101.09	1,074.47	-24.87	110.33	14,527,606.13	2,092,332.41	39° 59' 35.004 N	109° 23' 11.588 W
1,174.00	15.27	101.84	1,161.59	-29.37	132.48	14,527,602.03	2,092,354.63	39° 59' 34.960 N	109° 23' 11.303 W
1,264.00	15.81	102.35	1,248.30	-34.42	156.06	14,527,597.41	2,092,378.30	39° 59' 34.910 N	109° 23' 11.000 W
1,354.00	16.67	98.17	1,334.71	-38.88	180.81	14,527,593.40	2,092,403.13	39° 59' 34.866 N	109° 23' 10.682 W
1,444.00	17.42	99.95	1,420.76	-43.04	206.86	14,527,589.71	2,092,429.25	39° 59' 34.825 N	109° 23' 10.347 W
1,534.00	17.40	101.07	1,506.63	-47.96	233.34	14,527,585.28	2,092,455.81	39° 59' 34.776 N	109° 23' 10.007 W
1,624.00	16.89	101.82	1,592.63	-53.22	259.34	14,527,580.49	2,092,481.90	39° 59' 34.724 N	109° 23' 9.673 W
1,714.00	16.55	100.68	1,678.83	-58.27	284.73	14,527,575.89	2,092,507.38	39° 59' 34.674 N	109° 23' 9.347 W
1,804.00	15.89	99.14	1,765.25	-62.60	309.50	14,527,572.01	2,092,532.22	39° 59' 34.631 N	109° 23' 9.029 W
1,894.00	15.94	96.76	1,851.80	-66.02	333.93	14,527,569.04	2,092,556.71	39° 59' 34.597 N	109° 23' 8.715 W
1,984.00	16.25	95.29	1,938.27	-68.63	358.74	14,527,566.88	2,092,581.57	39° 59' 34.572 N	109° 23' 8.396 W
2,074.00	13.95	94.13	2,025.16	-70.57	382.11	14,527,565.36	2,092,604.96	39° 59' 34.552 N	109° 23' 8.096 W
2,164.00	14.04	94.12	2,112.49	-72.14	403.81	14,527,564.18	2,092,626.70	39° 59' 34.537 N	109° 23' 7.817 W
2,254.00	13.80	94.20	2,199.84	-73.71	425.41	14,527,563.00	2,092,648.31	39° 59' 34.521 N	109° 23' 7.539 W
2,344.00	12.86	96.88	2,287.42	-75.70	446.06	14,527,561.39	2,092,669.00	39° 59' 34.502 N	109° 23' 7.274 W
2,410.00	12.61	96.51	2,351.79	-77.39	460.51	14,527,559.96	2,092,683.47	39° 59' 34.485 N	109° 23' 7.088 W
LAST SDI MWD SURFACE SURVEY									
2,520.00	11.15	95.06	2,459.43	-79.69	483.03	14,527,558.07	2,092,706.04	39° 59' 34.462 N	109° 23' 6.799 W
FIRST SDI MWD SURVEY PRODUCTION									
2,610.00	12.61	98.07	2,547.51	-81.84	501.43	14,527,556.25	2,092,724.47	39° 59' 34.441 N	109° 23' 6.562 W
2,701.00	12.40	102.64	2,636.35	-85.37	520.80	14,527,553.07	2,092,743.90	39° 59' 34.406 N	109° 23' 6.313 W
2,791.00	12.12	102.01	2,724.30	-89.45	539.47	14,527,549.33	2,092,762.64	39° 59' 34.366 N	109° 23' 6.073 W
2,882.00	11.74	99.92	2,813.33	-93.03	557.93	14,527,546.08	2,092,781.17	39° 59' 34.330 N	109° 23' 5.836 W
2,972.00	11.07	100.91	2,901.55	-96.25	575.44	14,527,543.19	2,092,798.72	39° 59' 34.299 N	109° 23' 5.611 W
3,063.00	10.10	103.24	2,991.00	-99.73	591.78	14,527,540.00	2,092,815.13	39° 59' 34.264 N	109° 23' 5.401 W
3,154.00	8.55	105.12	3,080.80	-103.32	606.08	14,527,536.67	2,092,829.49	39° 59' 34.229 N	109° 23' 5.217 W
3,244.00	6.17	110.08	3,170.05	-106.73	617.08	14,527,533.46	2,092,840.55	39° 59' 34.195 N	109° 23' 5.076 W
3,335.00	4.57	108.16	3,260.65	-109.54	625.12	14,527,530.80	2,092,848.64	39° 59' 34.167 N	109° 23' 4.973 W
3,425.00	3.40	96.98	3,350.43	-110.98	631.18	14,527,529.47	2,092,854.72	39° 59' 34.153 N	109° 23' 4.895 W
3,516.00	1.75	92.69	3,441.34	-111.37	635.24	14,527,529.15	2,092,858.80	39° 59' 34.149 N	109° 23' 4.843 W
3,606.00	0.70	253.34	3,531.33	-111.59	636.09	14,527,528.94	2,092,859.65	39° 59' 34.147 N	109° 23' 4.832 W
3,697.00	1.72	250.26	3,622.30	-112.21	634.27	14,527,528.29	2,092,857.84	39° 59' 34.141 N	109° 23' 4.855 W
3,787.00	1.72	239.19	3,712.26	-113.36	631.84	14,527,527.09	2,092,855.43	39° 59' 34.129 N	109° 23' 4.886 W
3,878.00	1.74	226.60	3,803.22	-115.01	629.66	14,527,525.41	2,092,853.28	39° 59' 34.113 N	109° 23' 4.914 W
3,968.00	1.92	209.14	3,893.18	-117.27	627.94	14,527,523.12	2,092,851.60	39° 59' 34.091 N	109° 23' 4.937 W
4,059.00	2.08	214.13	3,984.12	-119.96	626.27	14,527,520.39	2,092,849.98	39° 59' 34.064 N	109° 23' 4.958 W
4,149.00	0.73	208.76	4,074.09	-121.82	625.08	14,527,518.52	2,092,848.82	39° 59' 34.046 N	109° 23' 4.973 W
4,240.00	0.35	228.75	4,165.09	-122.51	624.59	14,527,517.82	2,092,848.34	39° 59' 34.039 N	109° 23' 4.980 W
4,330.00	0.66	348.63	4,255.09	-122.18	624.28	14,527,518.14	2,092,848.03	39° 59' 34.042 N	109° 23' 4.984 W
4,421.00	0.53	337.83	4,346.08	-121.28	624.02	14,527,519.04	2,092,847.75	39° 59' 34.051 N	109° 23' 4.987 W
4,511.00	0.24	346.90	4,436.08	-120.71	623.82	14,527,519.60	2,092,847.54	39° 59' 34.057 N	109° 23' 4.989 W
4,602.00	0.17	296.02	4,527.08	-120.47	623.65	14,527,519.84	2,092,847.37	39° 59' 34.059 N	109° 23' 4.992 W
4,693.00	1.18	332.01	4,618.07	-119.58	623.09	14,527,520.72	2,092,846.80	39° 59' 34.068 N	109° 23' 4.999 W
4,783.00	0.58	332.19	4,708.06	-118.36	622.44	14,527,521.93	2,092,846.13	39° 59' 34.080 N	109° 23' 5.007 W
4,874.00	0.48	349.53	4,799.06	-117.58	622.16	14,527,522.71	2,092,845.83	39° 59' 34.088 N	109° 23' 5.011 W
4,964.00	0.78	349.00	4,889.05	-116.60	621.98	14,527,523.67	2,092,845.62	39° 59' 34.097 N	109° 23' 5.013 W
5,055.00	0.62	317.32	4,980.05	-115.63	621.52	14,527,524.64	2,092,845.15	39° 59' 34.107 N	109° 23' 5.019 W
5,145.00	0.07	296.09	5,070.04	-115.25	621.14	14,527,525.01	2,092,844.77	39° 59' 34.111 N	109° 23' 5.024 W
5,235.00	0.41	44.60	5,160.04	-115.00	621.32	14,527,525.27	2,092,844.94	39° 59' 34.113 N	109° 23' 5.022 W
5,326.00	0.09	225.36	5,251.04	-114.82	621.50	14,527,525.45	2,092,845.12	39° 59' 34.115 N	109° 23' 5.019 W
5,417.00	0.18	130.41	5,342.04	-114.96	621.66	14,527,525.31	2,092,845.18	39° 59' 34.114 N	109° 23' 5.019 W
5,507.00	0.71	148.84	5,432.04	-115.53	621.95	14,527,524.75	2,092,845.58	39° 59' 34.108 N	109° 23' 5.013 W
5,598.00	0.41	149.00	5,523.03	-116.29	622.41	14,527,524.00	2,092,846.06	39° 59' 34.100 N	109° 23' 5.008 W

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT UTM12
Site: NBU 922-36G3 PAD
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Local Co-ordinate Reference: Well NBU 922-36G4CS
TVD Reference: GL 4958' & KB 14' @ 4972.00ft (ENSIGN 139)
MD Reference: GL 4958' & KB 14' @ 4972.00ft (ENSIGN 139)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,688.00	0.64	165.65	5,613.03	-117.05	622.70	14,527,523.24	2,092,846.36	39° 59' 34.093 N	109° 23' 5.004 W
5,779.00	1.13	171.71	5,704.02	-118.43	622.96	14,527,521.86	2,092,846.64	39° 59' 34.079 N	109° 23' 5.001 W
5,869.00	1.19	150.24	5,794.00	-120.12	623.55	14,527,520.18	2,092,847.26	39° 59' 34.063 N	109° 23' 4.993 W
5,960.00	1.32	168.23	5,884.98	-121.97	624.23	14,527,518.35	2,092,847.98	39° 59' 34.044 N	109° 23' 4.984 W
6,050.00	0.37	191.14	5,974.97	-123.27	624.39	14,527,517.05	2,092,848.16	39° 59' 34.032 N	109° 23' 4.982 W
6,141.00	1.14	356.17	6,065.96	-122.65	624.27	14,527,517.67	2,092,848.03	39° 59' 34.038 N	109° 23' 4.984 W
6,231.00	1.52	343.08	6,155.94	-120.62	623.86	14,527,519.69	2,092,847.58	39° 59' 34.058 N	109° 23' 4.989 W
6,322.00	1.37	350.08	6,246.91	-118.39	623.32	14,527,521.91	2,092,847.01	39° 59' 34.080 N	109° 23' 4.996 W
6,412.00	1.21	351.22	6,336.89	-116.39	622.99	14,527,523.90	2,092,846.64	39° 59' 34.099 N	109° 23' 5.000 W
6,503.00	1.02	358.64	6,427.87	-114.63	622.83	14,527,525.66	2,092,846.44	39° 59' 34.117 N	109° 23' 5.002 W
6,593.00	0.52	19.59	6,517.86	-113.45	622.95	14,527,526.85	2,092,846.54	39° 59' 34.129 N	109° 23' 5.001 W
6,684.00	0.54	23.79	6,608.86	-112.67	623.26	14,527,527.63	2,092,846.84	39° 59' 34.136 N	109° 23' 4.997 W
6,774.00	0.19	30.32	6,698.86	-112.15	623.50	14,527,528.15	2,092,847.07	39° 59' 34.141 N	109° 23' 4.994 W
6,865.00	0.22	131.98	6,789.86	-112.14	623.71	14,527,528.17	2,092,847.28	39° 59' 34.142 N	109° 23' 4.991 W
6,955.00	0.47	111.51	6,879.86	-112.39	624.18	14,527,527.93	2,092,847.75	39° 59' 34.139 N	109° 23' 4.985 W
7,046.00	0.53	166.09	6,970.85	-112.93	624.63	14,527,527.39	2,092,848.21	39° 59' 34.134 N	109° 23' 4.979 W
7,136.00	0.98	137.93	7,060.84	-113.91	625.25	14,527,526.43	2,092,848.85	39° 59' 34.124 N	109° 23' 4.971 W
7,227.00	0.83	154.55	7,151.83	-115.08	626.05	14,527,525.27	2,092,849.67	39° 59' 34.112 N	109° 23' 4.961 W
7,318.00	0.85	165.60	7,242.82	-116.33	626.50	14,527,524.03	2,092,850.15	39° 59' 34.100 N	109° 23' 4.955 W
7,408.00	0.58	150.31	7,332.82	-117.37	626.89	14,527,522.99	2,092,850.56	39° 59' 34.090 N	109° 23' 4.950 W
7,499.00	0.71	134.96	7,423.81	-118.17	627.52	14,527,522.21	2,092,851.20	39° 59' 34.082 N	109° 23' 4.942 W
7,589.00	0.99	122.38	7,513.80	-118.98	628.57	14,527,521.42	2,092,852.26	39° 59' 34.074 N	109° 23' 4.928 W
7,679.00	1.52	120.64	7,603.78	-120.01	630.26	14,527,520.42	2,092,853.96	39° 59' 34.064 N	109° 23' 4.907 W
7,770.00	1.78	124.60	7,694.74	-121.42	632.46	14,527,519.04	2,092,856.19	39° 59' 34.050 N	109° 23' 4.878 W
7,860.00	1.47	145.11	7,784.71	-123.17	634.27	14,527,517.34	2,092,858.03	39° 59' 34.033 N	109° 23' 4.855 W
7,951.00	0.44	120.55	7,875.69	-124.30	635.24	14,527,516.22	2,092,859.02	39° 59' 34.021 N	109° 23' 4.843 W
8,041.00	0.81	138.71	7,965.69	-124.95	635.95	14,527,515.58	2,092,859.75	39° 59' 34.015 N	109° 23' 4.834 W
8,132.00	1.01	128.69	8,056.68	-125.94	637.00	14,527,514.61	2,092,860.82	39° 59' 34.005 N	109° 23' 4.820 W
8,222.00	0.61	126.12	8,146.67	-126.72	638.01	14,527,513.85	2,092,861.84	39° 59' 33.997 N	109° 23' 4.807 W
8,313.00	0.57	112.80	8,237.66	-127.18	638.82	14,527,513.41	2,092,862.66	39° 59' 33.993 N	109° 23' 4.797 W
8,403.00	0.87	151.22	8,327.65	-127.95	639.56	14,527,512.65	2,092,863.41	39° 59' 33.985 N	109° 23' 4.787 W
8,494.00	0.75	137.91	8,418.65	-129.00	640.29	14,527,511.61	2,092,864.16	39° 59' 33.975 N	109° 23' 4.778 W
8,584.00	1.23	147.84	8,508.63	-130.25	641.20	14,527,510.38	2,092,865.09	39° 59' 33.962 N	109° 23' 4.766 W
8,680.00	1.55	144.27	8,604.60	-132.18	642.51	14,527,508.47	2,092,866.44	39° 59' 33.943 N	109° 23' 4.749 W
LAST SDI MWD SURVEY PRODUCTION									
8,735.00	1.55	144.27	8,659.58	-133.39	643.38	14,527,507.28	2,092,867.33	39° 59' 33.932 N	109° 23' 4.738 W
SDI PROJECTION TO BIT									

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N-S (ft)	+E-W (ft)	
209.00	209.00	0.37	-0.11	FIRST SDI MWD SURFACE SURVEY
2,410.00	2,351.79	-77.39	460.51	LAST SDI MWD SURFACE SURVEY
2,520.00	2,459.43	-79.69	483.03	FIRST SDI MWD SURVEY PRODUCTION
8,680.00	8,604.60	-132.18	642.51	LAST SDI MWD SURVEY PRODUCTION
8,735.00	8,659.58	-133.39	643.38	SDI PROJECTION TO BIT

Checked By: _____ Approved By: _____ Date: _____